Commonwealth of Virginia
Department of Education
RFP # DOE-PDO-2015-11

Proposal

Provided by Teachstone®

Contact Information:

Sedra Spano

Regional Director

Teachstone® Training, LLC

sedra.spano@teachstone.com

Direct Phone: 704-641-6802

1. Table of Contents

2.i RFP Cover Sheet and Addenda Acknowledgements

From: <u>Teachstone Training, LLC</u>   **Due Date:**   <u>July 10, 2:00 PM</u>

    <u>105 Monticello Ave, Suite 201</u>   **RFP #:**   <u>DOE-PDO-2015-11</u>

    <u>Charlottesville, Va 22902</u>   **RFP Title:**   <u>Professional Development</u>
<u>Options for</u>

                                                           <u>VPI+ Early Learning Providers</u>

DSBSD-certified Micro Business or Small Business No.: <u>N/A</u>

Name of Contract/Purchase Officer: <u>Marie G. Williams</u>

PROPOSER:

Teachstone Training, LLC

105 Monticello Ave, Suite 201

Charlottesville, Va 22902

www.teachstone.com

Phone: 434-293-3909

Toll-Free: 866.998.8352

Fax: 434-227-5434

REQUESTER:

Commonwealth of Virginia Department of Education

Attn: Marie Williams

James Monroe Building

21st Floor, Purchasing and Contracts Section

101 N. 14th Street

Richmond, VA, 23219

2.ii Attachment A: State Corporation Commission Form

2.iii Confirmation of Acceptance of RFP General and Special Terms and Conditions

3. Data and Materials to be Protected

This statement certifies that no proprietary or trade secret material is being submitted as part of this proposal.

4. Attachment B: Data Security Plan

Data Security for myCLASS and myTeachstone Systems

1. A list of variables collected or transferred;
- Personally identifying information: name, email, phone, address, company, title,
- Video: Videos are collected for certain offerings (MTP, MMCI)
- Scores: Reliability Scores for Reliability Tests
- Feedback: Text data fields containing analysis of and feedback to teachers, coaches, and instructors in response to live or video observation

2. Format(s) in which data will be provided;
- Data is only available through the website.

3. Methods used to ensure secure data transfer, including a method of protecting against unauthorized access to sensitive data;
- Data is stored on private database servers that are only accessible by Teachstone tech staff or data center staff if physical hardware troubleshooting is required.
- User passwords are encrypted using high grade one-way encryption.
- All access to the myCLASS application, including authentication, is done using SSL.

4. The number of data transfers and timeframe within which data can be made available to authorized personnel;
- The data system is live-updating, meaning data can be accessed by the user as soon as it is entered into the system.

5. A method of protecting against unauthorized access to sensitive data;
- See number 3 above.

6. Weekly backups with incremental daily backups and a 48-hour recovery from the loss of a data center including the loss of only 2 hours of data;
- We keep at least 90 days worth of daily backups for all databases.

7. A suitable hosting environment;
- We are hosted at Rackspace.
  <http://broadcast.rackspace.com/downloads/pdfs/RackspaceSecurityApproach.pdf>

8. Data archival policies and any data purge policies;
- Data archival is performed via nightly backups. We take nightly backups of our databases, nightly images of our servers and our codebase is on a repository hosting service. Data purges are performed manually and on a case-by-case basis.

9. A process for handling and notification of a breach of non-public data;
- Our Development Operations team has various monitoring and alerting throughout our infrastructure. Once we were notified something was amiss, we would immediately act to mitigate the threat while notifying our customers throughout the process. Once the threat was identified and resolved, we would take steps to prevent those threats from reoccurring.

10. A process for the authorization of various roles associated with data access;
- Teachstone employees set up limited user access based on the service purchased or the level of required administrative access requested by the client. Single user passwords are encrypted to ensure the designated user is given the correct level of access.

11. A policy for only allowing remote access using industry standard network security processes;
- Employees use SSH keys to access the servers containing data.

12. A process for ensuring security of data stored at the offeror's site as well as any server security policies;
- Data is stored on private database servers that are only accessible by Teachstone tech staff or data center staff if physical hardware troubleshooting is required.
- User passwords are encrypted using high grade one-way encryption.
- All access to the myCLASS application, including authentication, is done using SSL.
- As stated in 16, 17 and 18, we currently do not perform scheduled scanning
- Servers are only accessible via SSH keys
- We use a combination of Cloud 66's ActiveProtect and firewalls, Denyhosts and Apache's ModSecurity

13. A process for identifying and remediating software defects;
- Once an issue is identified, our tech support team verifies the issue and the necessary work to rectify the issue is prioritized and planned.

14. A process for incident management, change management, and release management;
- General software updates and releases are planned using the Agile method of development (2 week release schedule).
- Incidents and feature requests are captured using a CRM database and prioritized within the Agile schedule.
- Updates are announced and described using release notes.

15. A process for how school divisions will get their data back in a form that can be used in the event of contract termination or expiration or if the a different service is desired;
- A school division can reach out to Teachstone at the end of the project or upon termination of the contract. A database administrator can gather the data and transfer it to the district in a format suitable to them. This will occur on a case-by-case basis.

16. Network-layer vulnerability scans conducted regularly;
- We perform regularly scheduled network-layer vulnerability scans.

17. Application-layer vulnerability scans conducted regularly;
- We perform regularly scheduled application-layer vulnerability scans.

18. Local operating system-layer vulnerability scans conducted regularly;
- We perform regularly scheduled system-layer vulnerability scans.

19. File integrity (host) and network intrusion detection (IDS) tools that are implemented to help facilitate timely detection, investigation by root cause analysis and response to incident;
- We use a combination of Cloud 66's ActiveProtect and firewalls, Denyhosts and Apache's ModSecurity for regular vulnerability management.

20. Regular penetration testing, vulnerability management, and intrusion prevention;
- We use a combination of Cloud 66's ActiveProtect and firewalls, Denyhosts and Apache's ModSecurity for vulnerability management and intrusion detection.

21. Network devices that are located in secure facilities and under controlled circumstances (e.g. ID cards, entry logs);

- We are hosted at Rackspace. For more information on their secure facilities see: <http://broadcast.rackspace.com/downloads/pdfs/RackspaceSecurityApproach.pdf>

22. A standard time frame regarding how quickly patches are applied from the time of supplier release;
- myCLASS is a Ruby on Rails application running on Ubuntu servers. We make sure to stay up-to-date with the latest versions of Ruby, Rails and Ubuntu.

23. Background checks on your firm's personnel with physical and/or administrative access to network devices, servers, applications and customer data;
- Teachstone runs a standard background check on each employee when they are hired. Each employee signs a consent form giving Teachstone the authority to process the screening. The screening consists of statewide criminal searches, address and SSN verification, and instant criminal index for all available states.

24. Processes for authenticating callers and resetting access controls, as well as establishing and deleting accounts;
- To reset access, callers must give their email address and name. A password reset link is then sent to the email address on file provided it matches the email address given verbally.
- Upon receiving a product key (after making a purchase), user can gain access to myCLASS. To gain access to myCLASS, a user creates an account by providing an emails address and a password.
- To gain access to myTeachstone, users provide their email address and an email with a link to set up their account is sent to the email address.
- Accounts can be deactivated but cannot be deleted. They are no longer visible to anyone except database administrators.

25. Protection against denial-of-service attack;
- We use a combination of Cloud 66's ActiveProtect and firewalls, Denyhosts and Apache's ModSecurity.

26. Technical measures and techniques for detection and timely response to network-based attacks such as distributed denial-of -service (DDoS) attack; and
- We use a combination of Cloud 66's ActiveProtect and firewalls, Denyhosts and Apache's ModSecurity.

27. A statement confirming that the offeror shall:

a. Comply with Virginia's Information Technology Security Policy and Standards (http://www.vita.virginia.gov/library/default.aspx?id=537#securityPSGs);

b. Comply with the Family Educational Rights and Privacy Act (FERPA);

c. Meet cloud security requirements by a certifying body such as Fed-RAMP (http://cloud.cio.gov/fedramp), if applicable

d. Include a product support program for users and administrators;

e. Be Section 508 compliant

(http://www.vita.virginia.gov/uploadedfiles/vita_main_public/unmanaged/library/contingencyplanning guideline04_18_2007.pdf);

f. Include a backup and recovery plan that is tested at least annually;

g. Include an outage plan. Users shall be notified of anticipated and unanticipated outages;

h. Adhere to the Student Privacy Pledge, located in http://studentprivacypledge.org/?page_id=45;

i. Ensure that all data processed, stored and maintained by the offeror shall NOT leave the borders of the United States (including all online storage as well as data backups and archived data);

j. Include a process that allow

s the State to audit the physical environment where a service is hosted;

k. Include a process for securing non-public data at rest and non-public data in motion;

l. Allow access to incident data for investigative purposes;

m. Allow access to system security and audit logs;

n. Patch software vulnerabilities routinely or automatically on all servers; and

o. Encrypt data at motion and at rest.

Statement: Teachstone shall comply with the above requirements, labeled "27.a" through "27.o."

List of Data Systems Used by Teachstone Professional Development Offerings

Teachstone Data System	Professional Development Offering
myCLASS	D-I-1 Introduction to the CLASS Tool, Face-to-Face
myCLASS	D-I-2 Observation Training (and CLASS Observer Re-certification)
myCLASS	D-I-3 Train-the-Trainer Program
myCLASS	D-I-4 Double Coding with the CLASS Tool
myCLASS	D-I-5 CLASS Feedback Strategies, Face-to-face
myCLASS	D-I-6 Instructional Support Strategies, Face-to-face
myCLASS	D-I-7 Effective Coaching Practices with myTeachstone
myCLASS	D-III-1 Online Introduction to the CLASS Tool
myTeachstone	D-III-2 myTeachstone
myCLASS	D-III-3 Instructional Support Strategies for Coaches Online
myCLASS	D-III-4 Instructional Support Strategies for Teachers Online
myCLASS	D-III-5 CLASS Feedback Strategies for Coaches Online
myCLASS	D-III-6
myCLASS	D-IV-1 MyTeachingPartner Coaching
myCLASS	D-IV-2 Making the Most of Classroom Interactions
myCLASS	D-V-1 CLASS Video Library and CLASS Discussion Toolkit

5. Attachment C: Offeror Data Sheet

6. Attachment D

Introduction to Teachstone's Approach to Professional Development

Note: *The content in this introduction addresses some of the required questions from Attachment D of the RFP. In cases where the answer to the question applies to multiple offerings, a note is made in the specific offering's section to reference this Introduction.*

Effective Teacher-Child Interactions Are Key to Early Success

The interactions that young children have with teachers and caregivers provide a foundation for learning and later school success. In fact, effective teacher-child interactions are increasingly viewed as a key aspect of early childhood care and education, as evidenced by their inclusion in federal Head Start monitoring as well as in state Quality Rating and Improvement Systems (QRISs) across the country. From birth, interactions that are positive, warm, and stimulating can be highly protective and set the stage for optimal development, while under-stimulation and exposure to stress can be toxic to developing brains, leading to behavior problems and social and academic difficulties.[1] In preschool classrooms, children who experience more effective interactions—interactions that are warm, developmentally appropriate, and provide cognitive and linguistic stimulation—make greater gains in academic and social/emotional development than children who experience less effective interactions.[1] Furthermore, effective interactions support children's classroom engagement and the development of "learning-to-learn" skills, both of which are critical for early school success.[2,3] The Classroom Assessment Scoring System® (CLASS®) is a framework developed and researched over nearly two decades to capture the aspects of effective interactions that are most closely aligned with children's social, emotional, and academic outcomes. The foundations of the CLASS system are rooted in the theory that interactions between teachers and students fundamentally drive the learning and development that occur within classrooms: effective teachers actively engage with children and create environments that are conducive to learning.[4,5] This premise has been borne out in multiple studies involving thousands of classrooms and tens of thousands of students across age levels, from preschool through secondary school.

Unfortunately, data indicate that most child-care settings are characterized by low- to moderate-quality interactions. A large-scale study of interactions across 11 states found emotionally supportive interactions in the mid-range, indicating that moments of close teacher-child connection are punctuated by inconsistent warmth and sensitivity. Instructional interactions averaged in the low range, suggesting that examples of high-quality instruction were rare.[6] More recent nationally representative data from Head Start [7] paint a slightly better picture—Emotional Support in the upper-mid range and Instructional Support in the low-mid range—but still suggest substantial room for improvement.

Based on this strong research foundation, Teachstone's professional development programs meet the needs of a full range of early childhood education settings, including public and private preschool programs. These programs improve and increase teachers' knowledge of the academic and essential domains of school readiness, by improving teacher-child interactions.

About Teachstone

Since our inception in 2008, Teachstone has impacted thousands of teachers and millions of children through the CLASS system. We have trained over 28,000 CLASS observers, supported over 44,000 teachers, and

impacted the academic and social outcomes of over six million children. This large, powerful footprint increases every year as we develop additional professional development programs and services, and partner with other national organizations to increase scalability, capacity, and efficiencies.

Virginia's Foundation Blocks for Early Learning, Kindergarten Standards of Learning, and Milestones for Child Development (addressing question 10 for all Teachstone offerings)

All CLASS trainings and CLASS-based professional development options described in this response focus on improving the quality of interactions between teachers and children around the three domains of the Pre-K CLASS tool: Emotional Support, Classroom Organization, and Instructional Support. The CLASS tool is curriculum neutral; regardless of what curriculum is used, when teachers are more intentional and consistent in how they interact with children, the curriculum is more likely to be utilized to its full potential. Based on research findings, higher CLASS scores are associated with greater student behavioral engagement, stronger vocabulary and reading outcomes and increased math achievement.[8]

A rigorous randomized field trial, published in the journal *Science*, provides additional support for the causal relationship between effective teacher-student interactions and student learning gains.[9]

Given research findings as cited above, more effective teacher-child interactions lead to greater student achievement in key areas of Virginia's Foundation Blocks for Early Learning, Virginia's Kindergarten Standards of Learning, and the Milestones for Child Development.

Vocabulary and Math

In preschool, more effective teacher-child interactions are associated with higher scores in vocabulary and math, key skills for children about to enter kindergarten.[10] MTP coaching for preschool teachers has shown it leads to increases in children's vocabulary.[11]

Social Skills:

In preschool, more effective teacher-child interactions are associated with gains in social competence and lower behavior problems.[12]

References

[1] Shonkoff, J. P. & Phillips, D. A. (Eds.) (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development.* Washington, DC: National Academy Press.

[2] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79(3),* 732-749.

[3] Ponitz, C. C., Rimm-Kaufman, S. E., Grimm, K. J., & Curby, T. W. (2009). Kindergarten classroom quality, behavioral engagement, and reading achievement. *School Psychology Review, 38(1),* 102-120.

[4] Dominguez, X., Vitiello, V. E., Fuccillo, J. M., Greenfield, D. B., & Bulotsky-Shearer, R. J. (2011). The role of context in preschool learning: A multilevel examination of the contribution of context-specific problem behaviors and classroom process quality to low-income children's approaches to learning. *Journal of School Psychology, 49(2),* 175-195.

[5] Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-Kindergarten programs. *Early Childhood Research Quarterly, 23(1),* 27-50.

[6] Hamre, B. K., Pianta, R. C., Downer, J. T., DeCoster, J., Mashburn, A. J., Jones, S. M., Hamagami, A. (2013). Teaching through interactions: Testing a developmental framework of teacher effectiveness in over 4,000 classrooms. *The Elementary School Journal, 113(4),* 461-487.

[7] https://eclkc.ohs.acf.hhs.gov/hslc/hs/sr/class/

[8] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79(3),* 732-749.

[9] Sabol, T. J., Soliday Hong, S. L., Pianta, R. C., & Burchinal, M. R. (2013). Can rating pre-K programs predict children's learning? *Science,* 341, 845-846.

[10] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79(3),* 732-749.

[9] Mashburn, A. J., Downer, J. T., Hamre, B. K., Justice, L. M., & Pianta, R. C. (2010). Consultation for teachers and children's language and literacy development during pre-kindergarten. *Applied Developmental Science, 14(4),* 179-196.

[11] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79(3),* 732-749.

[12] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79(3),* 732-749.

D-I-1 Introduction to the CLASS Tool, Face-to-Face

1. Name of Professional Development Offering: Introduction to the CLASS Tool

Brief (15 to 20 Word) Description: Gain an understanding of the CLASS framework, its various uses, and the teacher-child interactions that support children's learning.

x	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

This interactive session includes guided discussion, video analysis, and collaborative learning activities. The focus is on learning to recognize interactions within specific domains and dimensions and to learn about how teacher-child interactions impact child outcomes. Watching videos as a group and then discussing the videos within the CLASS framework helps participants gain an understanding of the CLASS tool.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
	Professional Development Category
X	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
X	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
X	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or

	preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

X	Language and literacy development
X	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
X	Social and emotional development

3. Who is your target audience? (Check all that apply.)

x	Teachers
x	Coaches
x	Administrators
x	Teacher Assistants
x	Other service providers (Program Directors, Education Coordinators, and anyone else interested in becoming familiar with the CLASS tool)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

6 hours

5. What are the goals and learning objectives of the professional development offering?
- Identify the teacher-child interactions measured by the CLASS tool
- Recognize the Emotional Support domain - how teachers interact with children to promote a positive climate, minimize classroom negativity, be sensitive and responsive to children's needs, and show regard for children's perspectives
- Recognize the Classroom Organization domain - how teachers interact with children to manage their behavior, use classroom time productively, and engage children so that they can get the most from classroom activities
- Recognize the Instructional Support domain - how teachers interact with children to support their cognitive development and language growth
- Learn how using the CLASS tool to observe, measure, and improve classroom interactions improves children's academic and social outcomes

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

- During interactive activities, the trainer delivering the training will gauge understanding and provide individualized feedback.
- Trainees complete a survey at the end of the training.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

This training provides opportunities for active learning experience by incorporating video, discussion, and activities. Trainers provide continuous feedback throughout these discussions and activities. This training provides and introduction to the scientifically validated CLASS tool. In addition, it provides an introduction of how to use the CLASS tool to collect data to drive lasting improvement in the classroom.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- experience working with at-risk and economically disadvantaged students
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems
- reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Training Team Leadership:

Sarah Hadden, Ph.D., Senior Advisor, Training and Professional Development, is an educator with over 30 years of experience. She has been a classroom teacher, a researcher, and a teacher educator. Sarah has extensive experience providing professional development to Head Start programs as well as experience working with teachers for the Virginia Preschool Initiative. In her role as Senior Advisor for Training and Professional Development, she provides both guidance on best practices and fidelity to research models in Teachstone's training and professional development programs. (See Appendix 8.1a for resume/CV)

Lisa Criss, Trainer Manager is responsible for overseeing Teachstone's trainers to ensure all clients get a quality training experience. Lisa has over 20 years of experience in the early childhood field, with 5 years spent in Telamon Corp. Michigan Migrant Head Start. She has 5 years of experience training on various age levels of CLASS. Lisa came to Teachstone with diverse work experiences combined with her education in early childhood, family studies, and a Masters in Management. Lisa Criss oversees all training staff. (See Appendix 8.1a for resume/CV)

All of Teachstone's trainers meet the following qualifications:

- Bachelor's degree in education (Master's degree or higher preferred; almost all of Teachstone's trainers have a Master's degree or are in the process of completing a Master's degree)
- demonstrated proficiency using the CLASS to observe and code classrooms and leading CLASS Training Programs (full training provided by Teachstone)
- maintain reliability for all CLASS age-levels assigned
- exemplary organization, written, and interpersonal communication skills
- curriculum design experience, especially related to design of teacher education programs
- strong customer service orientation
- ability to interest and inspire others
- adept use of technology, including Microsoft Office Suite applications and use of video and multimedia presentation tools
- knowledge of current trends in early-childhood education research and practice
- ease in delivering professional development programs

Trainer hiring process: Candidates are selected based on the qualifications listed above and interviewed. After interviewing, candidates respond to a second round of interview questions via email and submit to another level of screening. The strongest candidates over interview, qualifications, and written exam are selected for training.

Note: The CLASS Observation Train-the-Trainer program allows non-Teachstone observers to train to become CLASS affiliate trainers who may train within their own organizations. The contracting organization must determine its own affiliate trainer qualifications.

10. Describe the alignment to Virginia's Foundation Blocks for Early Learning, Kindergarten Standards of Learning, and Milestones for Child Development, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.
- Arrangements for physical training space that is conducive to discussion and video watching and large enough for the number of attendees (max 50)
- Internet connection
- LCD projector and screen
- speakers
- extension cords
- back-up laptop
- chart paper or dry erase board/markers, tape (for mounting chart paper)
- name plates/tags for participants
- Lunch/breaks for trainer and trainees

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

x	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

x	No
	Yes

Though not having undergone rigorous, independent research, this face-to-face program has been delivered over 50 times in 2015 so far and over 100 times since its creation, reaching thousands of educators across the US and the world. It is specifically designed to provide background knowledge essential for supporting successful implementation, capacity-building, and scaling of CLASS programs. It is not designed to impact teacher growth or child-outcomes, but rather serves to lay the groundwork for necessary teacher and administrator background knowledge to maximize professional development that will provide such impact.

13. How much time will your participants need to commit?

Face-to-Face Professional Development	
1	Days
6	Hours per Day
N/A	Months to Complete

In 6 hours, trainees will be introduced to the CLASS tool, learn to recognize the three CLASS domains, and gain an understanding of how the CLASS tool is used to measure teacher-child interactions. This training is also available in a half-day format of 4 hours. The 6-hour training allows the trainer to dive a little deeper into participants' specific questions, and to provide more examples of teacher-child interactions.

D-I-2 CLASS Observation Training

Brief (15 to 20 Word) Description:

This two-day training helps build an in-depth understanding of the CLASS™ measure and how to use it to observe and code classrooms accurately.

x	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

Explicit instruction and guided practice using authentic classroom videos prepare participants to take the CLASS reliability test and become Certified CLASS Observers. Each training may have a maximum of 17 participants, allowing for individualized feedback and support throughout the training. Conducting the training face-to-face allows the trainer to respond appropriately to the needs of each trainee.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
	Professional Development Category
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
x	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
x	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
x	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool

services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
x	Coaches
x	Administrators
	Teacher Assistants
x	Other service providers (classroom observers)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

16 hours

5. What are the goals and learning objectives of the professional development offering?
Participants will
- Understand what the CLASS tool measures
- Understand the link between effective teacher-child interactions and children's learning gains
- Identify the teacher-child interactions associated with each CLASS dimension
- Code classroom videos using the CLASS measure

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.
- Continuous interaction throughout the face-to-face training. Participants practice coding videos and receive individual and group feedback from the facilitator.
- Online observer certification test. Trainees watch and code give 15-20-minute videos to ensure reliability to the CLASS. Participants must score a minimum of 80% on this test and ensure reliability in at least 3 out of 5 videos in order to pass.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

During this interactive training, trainers provide continuous feedback to attendees. Each training may have a maximum of 17 participants, allowing for individualized feedback and support throughout the training.

This training teaches trainees to use the Classroom Assessment Scoring System reliably. It is structured around scientifically-based research on teacher-child interactions that are proven to improve student achievement and development, regardless of special needs or limited English proficiency. By using the CLASS tool to provide information to teachers in classrooms, schools are promoting the use of data to improve students' classroom experiences.

8. Describe qualifications of the individuals/staff who developed this offering.

Robert C. Pianta is Dean of the Curry School of Education at the University of Virginia. He also holds positions as the Novartis Professor of Education and was founding Director of the Curry School's Center for Advanced Study of Teaching and Learning (CASTL). Dr. Pianta held positions as Professor of Psychology at the University of Virginia's College of Arts & Sciences and as Director of the National Center for Research in Early Childhood Education.

Pianta's research and policy interests focus on teacher-student interactions and relationships and on the improvement of teachers' contributions to students' learning and development. He is the author of more than 250 articles, 50 book chapters, and 10 books, and has been a principal investigator on research and training grants totaling over $55 million. He served as the editor of the Journal of School Psychology from 1999 to 2007.

Among other research measures and instruments, Pianta is the creator of the Classroom Assessment Scoring System™ or CLASS, with versions for use with infants through twelfth grade students, all of which have been shown to capture features of teacher-student interactions that contribute to learning and development. CLASS is used by every Head Start program in the country, affecting 50,000 teachers and over half a million students. (See Appendix 8.1b for resume/CV)

Bridget Hamre is a Research Associate Professor in the Curry School of Education at UVA. Dr. Hamre's areas of expertise include student-teacher relationships and classroom processes that promote positive academic and social development for children. This work documents the ways in which teacher-child relationships are predictive of academic and social development and the ways in which exposure to effective classroom social and instructional interactions may help close the achievement gap for students at risk of school failure.

With Drs. Robert Pianta and Karen La Paro, she authored an observational tool for classrooms called the Classroom Assessment Scoring System (CLASS). Dr Hamre leads efforts to use the CLASS as an assessment, accountability, and professional development tool in early childhood and other educational settings. She has recently worked with leaders in several states and the Office of Head Start to implement CLASS as a tool to enhance teacher-child interactions through accountability and professional development systems. (See Appendix 8.1b for resume/CV)

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Teachstone's high caliber training has resulted in over 28,000 reliable CLASS observers across the U.S. and the world through both its Observation and Affiliate Trainer Training Programs.

According to surveys completed by participants in the CLASS Observation Training:
- 92% agreed that they had engaging discussions about the videos that helped them code more accurately.

- 95% agreed that the trainer clearly, specifically, and confidently addressed questions raised during the training.

Training Team Leadership:

Sarah Hadden, Ph.D., Senior Advisor, Training and Professional Development, is an educator with over 30 years of experience. She has been a classroom teacher, a researcher, and a teacher educator. Sarah has extensive experience providing professional development to Head Start programs as well as experience working with teachers for the Virginia Preschool Initiative. In her role as Senior Advisor for Training and Professional Development, she provides both guidance on best practices and fidelity to research models in Teachstone's training and professional development programs. (See Appendix 8.1a for resume/CV)

Lisa Criss, Trainer Manager is responsible for overseeing Teachstone's trainers to ensure all clients get a quality training experience. Lisa has over 20 years of experience in the early childhood field, with 5 years spent in Telamon Corp. Michigan Migrant Head Start. She has 5 years of experience training on various age levels of CLASS. Lisa came to Teachstone with diverse work experiences combined with her education in early childhood, family studies, and a Masters in Management. Lisa Criss oversees all training staff. (See Appendix 8.1a for resume/CV)

All of Teachstone's trainers meet the following qualifications:
- Bachelor's degree in education (Master's degree or higher preferred; almost all of Teachstone's trainers have a Master's degree or are in the process of completing a Master's degree)
- demonstrated proficiency using the CLASS to observe and code classrooms and leading CLASS Training Programs (full training provided by Teachstone)
- Maintain reliability for all CLASS age-levels assigned
- exemplary organization, written, and interpersonal communication skills
- curriculum design experience, especially related to design of teacher education programs
- strong customer service orientation
- ability to interest and inspire others
- adept use of technology, including Microsoft Office Suite applications and use of video and multimedia presentation tools
- knowledge of current trends in early-childhood education research and practice
- ease in delivering professional development programs

Trainer hiring process: Candidates are selected based on the qualifications listed above and interviewed. After interviewing, candidates respond to a second round of interview questions via email and submit to another level of screening. The strongest candidates over interview, qualifications, and written exam are selected for training.

Note: The CLASS Observation Train-the-Trainer program allows non-Teachstone observers to train to become CLASS Observation affiliate trainers who may train within their own organizations. The contracting organization must determine its own affiliate trainer qualifications.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Resources and space requirements:
- Arrangements for physical training space that is conducive to discussion and video watching and large enough for the number of attendees (max 17)
- Internet connection
- LCD projector and screen
- speakers
- extension cords
- back-up laptop
- chart paper or dry erase board/markers, tape (for mounting chart paper)
- name plates/tags for participants
- Lunch/breaks for trainer and trainees

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

	No
x	Yes

If yes, in the space below, summarize the evaluation methods, the population in which the program has been subject to rigorous evaluation (as defined in this proposal), and provide documentation verifying the results have been subject to an external peer review process by including a copy of the study just after this attachment. (For example, if the Attachment name is D-I-1, within Tab 6 of your proposal, include it after attachment D-I-1).

The Research Behind the CLASS Measure

The CLASS measure was developed out of two major national studies of early education and children's development. The first, the National Institute of Child Health and Human Development Study of Early Care and Youth Development (NICHD SECCYD), was a longitudinal study that examined children's experiences in preschool and elementary school classrooms across the United States. [1] One of the goals of the study was to develop a reliable observation system that measured the complex interpersonal processes in preschool and elementary classrooms. Researchers observed approximately 1,000 children in preschool or child-care settings at 54 months of age and then again in their first- and third-grade classrooms, using the Classroom Observation System (COS, a precursor to the current CLASS observation tool) to measure the effectiveness of the emotional and instructional interactions the teachers had with children in their classrooms. In addition, researchers assessed children's social and academic development using a standardized battery of tests.

The second study was conducted by the National Center for Early Development and Learning (NCEDL), which examined the quality of publicly funded preschool programs.[2] Researchers revised the COS to create the first version of the CLASS observation tool and used it to measure teacher-student interactions in nearly 700 state-funded preschool programs across [11] states. Just as with the NICHD study, researchers observed the quality of the classroom interactions and assessed the academic and social development of randomly selected children who attended these programs.

The findings from these and subsequent studies demonstrate the importance of teacher-child interactions in the classroom. Specifically, the research shows the following:
- Effective teacher-child interactions lead to better child cognitive, behavioral, and social outcomes. [3]
- Many pre-K classrooms have low or moderate levels of interactions, suggesting that many children in early childhood programs are not consistently exposed to the types of effective interactions that lead to social and academic gains. [4]

- Small differences in teacher-child interactions are associated with real differences in children's outcomes. [5]
- Carefully designed and implemented professional development supports can improve the quality of teacher-child interactions. [6]

References

NOTE: Teachstone cannot reproduce research articles under copyright. Therefore, Teachstone has not included copies as instructed by Marie Williams, Contract Officer on July 6, 2015. We have provided the included citations below:

[1] National Institute of Child Health and Human Development (NICHD). (1992). *The NICHD Study of Early Child Care: A comprehensive longitudinal study of young children's lives.* (ERIC Document Reproduction Service No. ED 353 087).

[2] Early, D., Burchinal, M., Barbarin, O., Bryant, D., Chang, F., Clifford, R., Barnett, W. S. (2013). *Pre-kindergarten in eleven states: NCEDL's multi-state study of pre-kindergarten & study of state-wide early education programs (SWEEP)*. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. Available online: <http://doi.org/10.3886/ICPSR34877.v1>

[3] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., ... Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79(3),* 732-749.

[4] La Paro, K. M., Pianta, R. C., & Stuhlman, M. (2004). The Classroom Assessment Scoring System: Findings from the prekindergarten year. *The Elementary School Journal, 104(5),* 409-426.

[5] Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-Kindergarten programs. *Early Childhood Research Quarterly, 23(1)*

[6] Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. *Early Childhood Research Quarterly, 23(4),* 431-451.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Face-to-Face Professional Development	
2	Days
8	Hours per Day
N/A	Months to Complete

In two days and a total of 16 hours, participants will learn to use the Classroom Assessment Scoring System to reliably score preschool classrooms. This includes time to learn about each domain and dimension, watch

example videos, and practicing using the CLASS to score videos. Participants will be prepared to take a reliability test to gain observer certification at the end of the 2 day training.

D-I-3 CLASS Train-the-Trainer Program

1. Name of Professional Development Offering:

Brief (15 to 20 Word) Description: The CLASS Train-the-Trainer Program allows certified observers to become certified affiliate trainers, capable of delivering both the CLASS Observation training and the Introduction to the CLASS Tool training to people in their organization. This allows organizations to take CLASS to scale.

x	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

Explicit instruction and guided practice using authentic classroom videos prepare participants to become affiliate trainers on the CLASS. Each training may have a maximum of 12 participants, allowing for individualized feedback and support throughout the training. Attendees will deepen their CLASS content knowledge, learn tips for leading successful CLASS programs, practice leading discussions and training exercises, and receive feedback on their performance from an experienced CLASS Trainer. Conducting the training face-to-face allows the trainer to respond appropriately to the needs of each trainee.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
	a. Quality of teacher-child interactions
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
x	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
x	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
x	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs

	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
x	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
x	Coaches
x	Administrators
	Teacher Assistants
x	Other service providers (classroom observers or other professional staff looking to take the CLASS tool to scale in a school district or districts)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

24 hours

5. What are the goals and learning objectives of the professional development offering?
Participants will
- Deepen their content knowledge of the CLASS measure and the theory and research behind it
- Learn and practice effective CLASS training strategies
- Prepare to conduct the Pre-K CLASS Observation Training and the Introduction to the Pre-K CLASS Tool program within their organization

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

Participants receive ongoing feedback throughout the training. Whole-group discussion and small-group discussion are used to identify misconceptions or questions, which are responded to by the trainer. Each participant practices facilitation of a training video and receives individualized feedback from the trainer.

Assessment of practice facilitation and structured feedback are used to determine whether the participant has met the objectives.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

This training develops an organization or district's ability to take the CLASS tool to scale to drive improved pedagogy by providing a framework within which to identify and improve teacher-child interactions. Trainees attend the three-day training and pass a subsequent test to become affiliate CLASS trainers with the ability to deliver Introduction to the CLASS trainings and CLASS Observation trainings for anyone within their organization. For more about the research base of the CLASS tool, see D-I-2 CLASS Observation Training.

This training includes the use of embedded follow-up and continuous feedback in its small face-to-face delivery and is delivered by Teachstone staff CLASS experts.

8. Describe qualifications of the individuals/staff who developed this offering.

Robert C. Pianta is Dean of the Curry School of Education at the University of Virginia. He also holds positions as the Novartis Professor of Education and was founding Director of the Curry School's Center for Advanced Study of Teaching and Learning (CASTL). Dr. Pianta held positions as Professor of Psychology at the University of Virginia's College of Arts & Sciences and as Director of the National Center for Research in Early Childhood Education.

Pianta's research and policy interests focus on teacher-student interactions and relationships and on the improvement of teachers' contributions to students' learning and development. He is the author of more than 250 articles, 50 book chapters, and 10 books, and has been a principal investigator on research and training grants totaling over $55 million. He served as the editor of the Journal of School Psychology from 1999 to 2007.

Among other research measures and instruments, Pianta is the creator of the Classroom Assessment Scoring System™ or CLASS, with versions for use with infants through twelfth grade students, all of which have been shown to capture features of teacher-student interactions that contribute to learning and development. CLASS is used by every Head Start program in the country, affecting 50,000 teachers and over half a million students. (See Appendix 8.1b for resume/CV)

Bridget Hamre is a Research Associate Professor in the Curry School of Education at UVA. Dr. Hamre's areas of expertise include student-teacher relationships and classroom processes that promote positive academic and social development for children. This work documents the ways in which teacher-child relationships are predictive of academic and social development and the ways in which exposure to effective classroom social and instructional interactions may help close the achievement gap for students at risk of school failure.

With Drs. Robert Pianta and Karen La Paro, she authored an observational tool for classrooms called the Classroom Assessment Scoring System (CLASS). Dr Hamre leads efforts to use the CLASS as an assessment, accountability, and professional development tool in early childhood and other educational settings. She has recently worked with leaders in several states and the Office of Head Start to implement CLASS as a tool to enhance teacher-child interactions through accountability and professional development systems. (See Appendix 8.1b for resume/CV)

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Teachstone's high caliber training has resulted in over 28,000 reliable CLASS observers across the U.S. and the world through both its Observation and Affiliate Trainer Training Programs.

According to surveys completed by participants in the Train-the-Trainer program:
- 95% agreed that, as a result of the training, they have developed the detailed understanding of the CLASS tool they need in order to train others.
- 98% agreed that that the trainer provided specific feedback during the practice sessions that will help them when they conduct CLASS trainings.
- 97% agreed that they understand and can explain the importance of reliability testing.

Sarah Hadden, Ph.D., Senior Advisor, Training and Professional Development, is an educator with over 30 years of experience. She has been a classroom teacher, a researcher, and a teacher educator. Sarah has extensive experience providing professional development to Head Start programs as well as experience working with teachers for the Virginia Preschool Initiative. In her role as Senior Advisor for Training and Professional Development, she provides both guidance on best practices and fidelity to research models in Teachstone's training and professional development programs. (See Appendix 8.1a for resume/CV)

Lisa Criss, Trainer Manager is responsible for overseeing Teachstone's trainers to ensure all clients get a quality training experience. Lisa has over 20 years of experience in the early childhood field, with 5 years spent in Telamon Corp. Michigan Migrant Head Start. She has 5 years of experience training on various age levels of CLASS. Lisa came to Teachstone with diverse work experiences combined with her education in early childhood, family studies, and a Masters in Management. Lisa Criss oversees all training staff. (See Appendix 8.1a for resume/CV)

Francine Oliver, Senior Manager for Professional Development is responsible for overseeing the implementation and delivery of Teachstone's wide variety of observer support and professional development services. Francine has worked as a public school teacher, teacher educator, instructional coach, and trainer for over 15 years. She comes to Teachstone via the University of Virginia where she earned her MEd in Curriculum and Instruction.

Vicki Kintner-Duffy, Senior Specialist for Coaching provides collaborative coaching for toddler and preschool teachers engaged in the MTP model. Additionally, she provides coding support for observers and serves as Research and Evaluation liaison. Whether helping coaches individualize feedback for their teachers or developing coaching curricula, Vicki uses her skills to research and implement innovative ways to address teachers' professional development needs. Vicki received her Ph.D. and M.S. from the University of North Carolina, with a specialization in Early Childhood Education, and her B.S. in Psychology from Centenary College of Louisiana. She is a certified CLASS Pre-K and Toddler Observer and MTP Specialist.

All of Teachstone's trainers for this offering meet the following qualifications:
- Bachelor's degree in education (Master's degree or higher preferred; almost all of Teachstone's trainers have a Master's degree or are in the process of completing a Master's degree)
- demonstrated expertise in using the CLASS to observe and code classrooms and leading CLASS Training Programs
- Maintain reliability for all CLASS age-levels assigned
- curriculum design experience, especially related to design of teacher education programs
- strong customer service orientation
- ability to interest and inspire others

- adept use of technology, including Microsoft Office Suite applications and use of video and multimedia presentation tools
- knowledge of current trends in early-childhood education research and practice
- ease in delivering professional development programs
- Trainers delivering the CLASS Train-the-Trainer program have years of experience with the CLASS tool and conducting training.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Participant requirements:
- participants must be a certified CLASS observer for the age level on which they will become an affiliate trainer.
- Successful observation and coding of ten classrooms since initial certification is recommended.

Resources and space requirements:
- Arrangements for physical training space that is conducive to discussion and video watching and large enough for the number of attendees
- Internet connection
- LCD projector and screen
- speakers
- extension cords
- back-up laptop
- chart paper or dry erase board/markers, tape (for mounting chart paper)
- name plates/tags for participants
- Lunch/breaks for trainer and trainees

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

	No
x	Yes

The Research Behind the CLASS Measure

The CLASS measure was developed out of two major national studies of early education and children's development. The first, the National Institute of Child Health and Human Development Study of Early Care and Youth Development (NICHD SECCYD), was a longitudinal study that examined children's experiences in preschool and elementary school classrooms across the United States. [1] One of the goals of the study was to develop a reliable observation system that measured the complex interpersonal processes in preschool and elementary classrooms. Researchers observed approximately 1,000 children in preschool or child-care settings at 54 months of age and then again in their first- and third-grade classrooms, using the Classroom Observation System (COS, a precursor to the current CLASS observation tool) to measure the effectiveness of the

emotional and instructional interactions the teachers had with children in their classrooms. In addition, researchers assessed children's social and academic development using a standardized battery of tests.

The second study was conducted by the National Center for Early Development and Learning (NCEDL), which examined the quality of publicly funded preschool programs.[2] Researchers revised the COS to create the first version of the CLASS observation tool and used it to measure teacher-student interactions in nearly 700 state-funded preschool programs across [11] states. Just as with the NICHD study, researchers observed the quality of the classroom interactions and assessed the academic and social development of randomly selected children who attended these programs.

The findings from these and subsequent studies demonstrate the importance of teacher-child interactions in the classroom. Specifically, the research shows the following:
- Effective teacher-child interactions lead to better child cognitive, behavioral, and social outcomes. [3]
- Many pre-K classrooms have low or moderate levels of interactions, suggesting that many children in early childhood programs are not consistently exposed to the types of effective interactions that lead to social and academic gains. [4]
- Small differences in teacher-child interactions are associated with real differences in children's outcomes. [5]
- Carefully designed and implemented professional development supports can improve the quality of teacher-child interactions. [6]

References

NOTE: Teachstone cannot reproduce research articles under copyright. Therefore, Teachstone has not included copies of as instructed by Marie Williams, Contract Officer, on July 6, 2015. We encourage reviewers to access these articles themselves online.

[1] National Institute of Child Health and Human Development (NICHD). (1992). *The NICHD Study of Early Child Care: A comprehensive longitudinal study of young children's lives.* (ERIC Document Reproduction Service No. ED 353 087).

[2] Early, D., Burchinal, M., Barbarin, O., Bryant, D., Chang, F., Clifford, R., Barnett, W. S. (2013). *Pre-kindergarten in eleven states: NCEDL's multi-state study of pre-kindergarten & study of state-wide early education programs (SWEEP)*. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. Available online: <http://doi.org/10.3886/ICPSR34877.v1>

[3] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., ... Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79(3),* 732-749.

[4] La Paro, K. M., Pianta, R. C., & Stuhlman, M. (2004). The Classroom Assessment Scoring System: Findings from the prekindergarten year. *The Elementary School Journal, 104(5),* 409-426.

[5] Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-Kindergarten programs. *Early Childhood Research Quarterly, 23(1)*

[6] Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. *Early Childhood Research Quarterly, 23(4),* 431-451.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Face-to-Face Professional Development	
3	Days
8	Hours per Day
N/A	Months to Complete

Three full days of training allows participants to dive deeply into the CLASS tool, learn tips and tricks for conducting a successful CLASS training, and to practice delivering portions of the training and facilitating enriching discussions.

D-I-4 Double Coding with the CLASS Tool

Brief (15 to 20 Word) Description:

An expert CLASS observer from Teachstone codes classrooms on-site alongside an organization's certified CLASS observers and provides guidance and feedback.

x	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

In-person double coding provides intensive and individualized support for CLASS coding accuracy and reliability.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes

	through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
x	Coaches
x	Administrators
	Teacher Assistants
x	Other service providers (CLASS Observers)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)

7 hours

5. What are the goals and learning objectives of the professional development offering?

Participants maintain and improve their CLASS® observing and coding accuracy and expertise so they can provide valid scores and (when applicable) effective feedback to teachers in support of their effective classroom interactions.

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

The Teachstone expert CLASS coder provides immediate and detailed feedback on the observers scoring as part of the double coding process.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

Double coding with the CLASS tool is structured on scientifically based research demonstrated to facilitate child development and improve student academic achievement and development and is delivered by individuals who have demonstrated qualifications and credentials in the focus area of the professional development. It promotes the use of data and developmentally appropriate assessments to improve instruction

8. Describe qualifications of the individuals/staff who developed this offering.

Robert C. Pianta is Dean of the Curry School of Education at the University of Virginia. He also holds positions as the Novartis Professor of Education and was founding Director of the Curry School's Center for

Advanced Study of Teaching and Learning (CASTL). Dr. Pianta held positions as Professor of Psychology at the University of Virginia's College of Arts & Sciences and as Director of the National Center for Research in Early Childhood Education.

Pianta's research and policy interests focus on teacher-student interactions and relationships and on the improvement of teachers' contributions to students' learning and development. He is the author of more than 250 articles, 50 book chapters, and 10 books, and has been a principal investigator on research and training grants totaling over $55 million. He served as the editor of the Journal of School Psychology from 1999 to 2007.

Among other research measures and instruments, Pianta is the creator of an observational assessment of teacher-student interactions known as the Classroom Assessment Scoring System™ or CLASS, with versions for use with infants through twelfth grade students, all of which have been shown to capture features of teacher-student interactions that contribute to learning and development. CLASS is used by every Head Start program in the country, affecting 50,000 teachers and over half a million students. (See Appendix 8.1b for resume/CV)

Bridget Hamre is a Research Associate Professor in the Curry School of Education at UVA. Dr. Hamre's areas of expertise include student-teacher relationships and classroom processes that promote positive academic and social development for children. This work documents the ways in which teacher-child relationships are predictive of academic and social development and the ways in which exposure to effective classroom social and instructional interactions may help close the achievement gap for students at risk of school failure.

With Drs. Robert Pianta and Karen La Paro, she authored an observational tool for classrooms called the Classroom Assessment Scoring System (CLASS). Dr Hamre leads efforts to use the CLASS as an assessment, accountability, and professional development tool in early childhood and other educational settings. She has recently worked with leaders in several states and the Office of Head Start to implement CLASS as a tool to enhance teacher-child interactions through accountability and professional development systems. (See Appendix 8.1b for resume/CV)

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Nikki Croasdale, Observer Support Manager has extensive experience analyzing inter-rater reliability among assessors on the CLASS assessment as she continually supports others in conducting classroom observations with fidelity. She has been using the CLASS tool since 2010, when she worked as a Pre-K CLASS coder and research assistant at the Center for the Advanced Study of Teaching and Learning. She earned her BA in Psychology and Cognitive Science from the University of Virginia. Her expertise is in live and videotaped CLASS coding, and she is certified on all age levels of the CLASS tool, Infant through Secondary.

Francine Oliver, Senior Manager for Professional Development is responsible for overseeing the implementation and delivery of Teachstone's wide variety of observer support and professional development services. Francine has worked as a public school teacher, teacher educator, instructional coach, and trainer for over 15 years. She comes to Teachstone via the University of Virginia where she earned her MEd in Curriculum and Instruction.

Mamie Morrow, Professional Development Specialist has over 16 years of diverse experience in education as a teacher, program manager, trainer, and coach to enhance early learning opportunities and outcomes. Currently, she supports MMCI Instructors deepening their CLASS knowledge, providing CLASS-based feedback, and developing interactive training skills to support teachers. Prior to this role at Teachstone, Mamie was an MTP coach wherein she cultivated strong relationships with 18 American Indian Head Start

Pre-K teachers in New Mexico and Wisconsin, promoting effective teacher-child interactions, improving classroom organization skills, and enhancing language and literacy instruction. Prior to Teachstone, Mamie supported children in New Mexico, Germany, Guam, Alaska, Japan, Washington, D.C. and Florida. Mamie holds a Masters Degree and Bachelors of Science in Elementary Education from the University of New Mexico. She is a certified CLASS Pre-K and K-3 Observer and Trainer, MTP Coach and MMCI Specialist.

Anne Tapaszi, Professional Development Specialist was a Head Start teacher in the original MyTeachingPartner study and is now responsible for the provision of MTP training and ongoing support with a cohort of MTP Coaches. This includes introducing coaches to MTP through a 3-day kick-off training and supporting coaches throughout the year as they implement MTP cycles with their teachers. As an MTP Specialist Anne individualizes support techniques for each coach, and assists coaches to maintain fidelity to the MTP research model. Additionally, she provides both CLASS Feedback and Instructional Support Strategies training, facilitates CLASS Observer trainings and Train-the-Trainer sessions, and double-codes classrooms for Observer Support. Anne holds both a B.A. in Communications and a B.S. in Early Childhood Education from the University of Wisconsin and is a member of numerous organizations including NAEYC, MNAYC and WECA.

(See Appendix 8.1a for resumes/CV's)

All of Teachstone's Double Coding staff meet the following qualifications:
- Bachelor's degree in education (Master's degree or higher preferred; almost all of Teachstone's trainers have a Master's degree or are in the process of completing a Master's degree)
- mastery level use of the CLASS to observe and code classrooms (full training provided by Teachstone)
- Maintain reliability for all CLASS age-levels assigned
- exemplary organization, written, and interpersonal communication skills
- curriculum design experience, especially related to design of teacher education programs
- strong customer service orientation
- ability to interest and inspire others
- adept use of technology, including Microsoft Office Suite applications and use of video and multimedia presentation tools
- knowledge of current trends in early-childhood education research and practice
- ease in delivering professional development programs

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Participant requirements:
- Participants must be currently certified as CLASS observers.

Space and scheduling requirements:
- appropriate age-level classrooms in which to conduct observations must be scheduled

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

	No
x	Yes

The Research Behind the CLASS Measure

The CLASS measure was developed out of two major national studies of early education and children's development. The first, the National Institute of Child Health and Human Development Study of Early Care and Youth Development (NICHD SECCYD), was a longitudinal study that examined children's experiences in preschool and elementary school classrooms across the United States. [1] One of the goals of the study was to develop a reliable observation system that measured the complex interpersonal processes in preschool and elementary classrooms. Researchers observed approximately 1,000 children in preschool or child-care settings at 54 months of age and then again in their first- and third-grade classrooms, using the Classroom Observation System (COS, a precursor to the current CLASS observation tool) to measure the effectiveness of the emotional and instructional interactions the teachers had with children in their classrooms. In addition, researchers assessed children's social and academic development using a standardized battery of tests.

The second study was conducted by the National Center for Early Development and Learning (NCEDL), which examined the quality of publicly funded preschool programs.[2] Researchers revised the COS to create the first version of the CLASS observation tool and used it to measure teacher-student interactions in nearly 700 state-funded preschool programs across [11] states. Just as with the NICHD study, researchers observed the quality of the classroom interactions and assessed the academic and social development of randomly selected children who attended these programs.

The findings from these and subsequent studies demonstrate the importance of teacher-child interactions in the classroom. Specifically, the research shows the following:
- Effective teacher-child interactions lead to better child cognitive, behavioral, and social outcomes. [3]
- Many pre-K classrooms have low or moderate levels of interactions, suggesting that many children in early childhood programs are not consistently exposed to the types of effective interactions that lead to social and academic gains. [4]
- Small differences in teacher-child interactions are associated with real differences in children's outcomes. [5]
- Carefully designed and implemented professional development supports can improve the quality of teacher-child interactions. [6]

References

NOTE: Teachstone cannot reproduce research articles under copyright. Therefore, Teachstone has not included copies as instructed by Marie Williams, Contract Officer on July 6, 2015. We have provided the included citations below:

[1] National Institute of Child Health and Human Development (NICHD). (1992). *The NICHD Study of Early Child Care: A comprehensive longitudinal study of young children's lives.* (ERIC Document Reproduction Service No. ED 353 087).

[2] Early, D., Burchinal, M., Barbarin, O., Bryant, D., Chang, F., Clifford, R., Barnett, W. S. (2013). *Pre-kindergarten in eleven states: NCEDL's multi-state study of pre-kindergarten & study of state-wide early education programs (SWEEP)*. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. Available online: <http://doi.org/10.3886/ICPSR34877.v1>

[3] Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., ... Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79(3),* 732-749.

[4] La Paro, K. M., Pianta, R. C., & Stuhlman, M. (2004). The Classroom Assessment Scoring System: Findings from the prekindergarten year. *The Elementary School Journal, 104(5),* 409-426.

[5] Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-Kindergarten programs. *Early Childhood Research Quarterly, 23(1)*

[6] Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. *Early Childhood Research Quarterly*, *23(4),* 431-451.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Face-to-Face Professional Development	
1	Days
7	Hours per Day
n/a	Months to Complete

Please describe, including the time participants will need to commit, here.

One day of intensive, individualized support helps strengthen and maintain CLASS observer reliability. Observers will code 4-6 cycles with an expert Teachstone CLASS observer and participate in a debriefing session.

D-I-5 CLASS Feedback Strategies, Face-to-Face

Brief (15 to 20 Word) Description:

CLASS Feedback Strategies training provides concrete strategies, goals and action plans for supporting teachers in increasing readiness and making changes. Increasing teacher self-efficacy, focusing on the positive interactions already occurring and building on strengths is infused throughout the training.

x	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

Through the use of video, discussion, role play, and continuous feedback, this training provides concrete strategies, goals and action plans for supporting teachers in increasing readiness and making changes in their practice. Participants are encouraged to discuss their own challenges in coaching in small groups, and to examine how to overcome those challenges using the feedback strategies taught.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
X	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
X	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
X	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to

	third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

X	Language and literacy development
X	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
X	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
X	Coaches
X	Administrators
	Teacher Assistants
	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

8 hours

5. What are the goals and learning objectives of the professional development offering?

Participants will learn to
- Share descriptive and objective feedback from the observation
- Determine teacher readiness level to change (defined as receptivity plus knowledge)
- Differentiate conversations within a feedback session
- Set appropriate goals and action plans for teachers

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

Participants describe and identify teacher-coach feedback in video, and receive group and individual feedback on their observations. Participants also identify readiness level in video, analyze case studies, and develop mock action plans based on video conferences. Role playing is used to practice providing feedback and guiding reflective questioning.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

This training uses real classroom video, discussion, and continuous feedback to help coaches and administrators learn to create effective goals and action plans for supporting teachers in increasing readiness and making changes. Feedback strategies are based on the well-researched domains and dimensions of the CLASS and use the CLASS framework. The Feedback Strategies Training teaches coaches to use a research-proven strength-based approach to coaching teachers.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool.

Hilary Ritt, Director of Content Development manages the development of myTeachstone's professional development content. As director, she ensures quality delivery of our trainings for professional development. From design and development to support of effective facilitation, Hilary works across the company to be sure our trainings aimed at improving teacher-child interactions are outstanding. Hilary comes to Teachstone from the University of Virginia teacher-training program where she earned her PhD in Instructional Technology and guided pre-service math and science teachers in the integration of technology into instruction. (See Appendix 8.1b for resume/CV)

All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems
- reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Sarah Hadden, Ph.D., Senior Advisor, Training and Professional Development, is an educator with over 30 years of experience. She has been a classroom teacher, a researcher, and a teacher educator. Sarah has extensive experience providing professional development to Head Start programs as well as experience working with teachers for the Virginia Preschool Initiative. In her role as Senior Advisor for Training and Professional Development, she provides both guidance on best practices and fidelity to research models in Teachstone's training and professional development programs. (See Appendix 8.1a for resume/CV)

Lisa Criss, Trainer Manager is responsible for overseeing Teachstone's trainers to ensure all clients get a quality training experience. Lisa has over 20 years of experience in the early childhood field, with 5 years spent in Telamon Corp. Michigan Migrant Head Start. She has 5 years of experience training on various age levels of CLASS. Lisa came to Teachstone with diverse work experiences combined with her education in early childhood, family studies, and a Masters in Management. Lisa Criss oversees all training staff. (See Appendix 8.1a for resume/CV)

Francine Oliver, Senior Manager for Professional Development is responsible for overseeing the implementation and delivery of Teachstone's wide variety of observer support and professional development

services. Francine has worked as a public school teacher, teacher educator, instructional coach, and trainer for over 15 years. She comes to Teachstone via the University of Virginia where she earned her MEd in Curriculum and Instruction.

Vicki Kintner-Duffy, Senior Specialist for Coaching provides collaborative coaching for toddler and preschool teachers engaged in the MTP model. Additionally, she provides coding support for observers and serves as Research and Evaluation liaison. Whether helping coaches individualize feedback for their teachers or developing coaching curricula, Vicki uses her skills to research and implement innovative ways to address teachers' professional development needs. Vicki received her Ph.D. and M.S. from the University of North Carolina, with a specialization in Early Childhood Education, and her B.S. in Psychology from Centenary College of Louisiana. She is a certified CLASS Pre-K and Toddler Observer and MTP Specialist.

Anne Tapaszi, Professional Development Specialist was a Head Start teacher in the original MyTeachingPartner study and is now responsible for the provision of MTP training and ongoing support with a cohort of MTP Coaches. This includes introducing coaches to MTP through a 3-day kick-off training and supporting coaches throughout the year as they implement MTP cycles with their teachers. As an MTP Specialist Anne individualizes support techniques for each coach, and assists coaches to maintain fidelity to the MTP research model. Additionally, she provides both CLASS Feedback and Instructional Support Strategies training, facilitates CLASS Observer trainings and Train-the-Trainer sessions, and double-codes classrooms for Observer Support. Anne holds both a B.A. in Communications and a B.S. in Early Childhood Education from the University of Wisconsin and is a member of numerous organizations including NAEYC, MNAYC and WECA.

(See Appendix 8.1a for resumes/CV's)

All of Teachstone's trainers meet the following qualifications:
- Bachelor's degree in education (Master's degree or higher preferred; almost all of Teachstone's trainers have a Master's degree or are in the process of completing a Master's degree)
- demonstrated proficiency using the CLASS to observe and code classrooms and leading CLASS Training Programs (full training provided by Teachstone)
- maintain reliability for all CLASS age-levels assigned
- exemplary organization, written, and interpersonal communication skills
- curriculum design experience, especially related to design of teacher education programs
- strong customer service orientation
- ability to interest and inspire others
- adept use of technology, including Microsoft Office Suite applications and use of video and multimedia presentation tools
- knowledge of current trends in early-childhood education research and practice
- ease in delivering professional development programs

Trainer hiring process: Candidates are selected based on the qualifications listed above and interviewed. After interviewing, candidates respond to a second round of interview questions via email and submit to another level of screening. The strongest candidates over interview, qualifications, and written exam are selected for training.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Resources and space requirements:
- Arrangements for physical training space that is conducive to discussion and video watching and large enough for the number of attendees
- Internet connection
- LCD projector and screen
- speakers
- extension cords
- back-up laptop
- chart paper or dry erase board/markers, tape (for mounting chart paper)
- name plates/tags for participants
- Lunch/breaks for trainer and trainees

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

X	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

X	No
	Yes

In developing this offering, Teachstone conducted a review of literature and used that information to inform development of this evidence-based, CLASS-based offering. Research has shown that feedback should be timely, specific, behaviorally based, derived from observation--especially negative feedback, and always accompanied by evidence.[1, 2] In addition, recipients are more satisfied with praise than with constructive, negative criticism, but make greater performance improvement in response to the latter.[3] Feedback features described in the literature have been incorporated in Teachstone's Feedback Strategies training. Once ready, the training was alpha tested in discrete parts with learners, revised, and then the complete training was beta tested with a large external group of users.

References used in developing this training:

[1] Archer, J. (2010). State of the science in health professional education: Effective feedback. *Medical Education,* 44, 101-108.

[2] Gigante, J., Dell, M. & Sharkey, A. (2011). Getting beyond "good job": How to give effective feedback. *Pediatrics,* 127(2), 205-207.

[3] Boehler, M.L., Rogers, D.A., Schwind, C.J., Mayforth, R., Quin, J., Williams, R.G., & Dunnington, G. (2006). An investigation of medical student reactions to feedback: A randomized controlled trial. *Medical Education,* 40, 746-749.

Additional references used in developing this training:

Finkelstein, S.R. & Fishbach, A. (2012). Tell me what I did wrong: Experts seek and respond to negative feedback. *Journal of Consumer Feedback, 39 (1)*, 22-38.

Locke, E.A. & Latham, G.P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, *57(9)*, 705-717.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Face-to-Face Professional Development	
1	Days
8	Hours per Day
N/A	Months to Complete

Through the use of video, discussion, and continuous feedback, this training takes only eight hours to provide concrete strategies, goals and action plans for supporting teachers in increasing readiness and making changes.

D-I-6 Instructional Support Strategies, Face-to-Face

1. Name of Professional Development Offering: Instructional Support Strategies, Face-to-Face

Brief (15 to 20 Word) Description: This training supports coaches as they deepen their knowledge and capacity to support and guide teachers to improve their effective interactions in the CLASS Instructional Support domain.

x	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

This interactive session includes guided discussion, video analysis, collaborative learning activities, problem solving, and planning. The focus is on deepening understanding of the Instructional Support dimensions and being able to support colleagues in this area as well.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
x	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade

o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
x	Coaches
x	Administrators
	Teacher Assistants
	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

7 hours

5. What are the goals and learning objectives of the professional development offering?

Participants will

- Gain a deeper understanding of the CLASS system and the Pre-K CLASS framework
- Deepen understanding of effective interactions within the Pre-K CLASS Instructional Support domain
- Learn strategies for supporting teachers as they increase the effectiveness of their interactions within the Instructional Support domain
- Generate ways to integrate these strategies into their professional development work with teachers

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

Participants apply learning in the training and culminating activities and return to the workplace able to better employ instructional support strategies in the classroom and to help colleagues do the same. During the training, participants practice facilitating a teacher-coach conference, plan for instructional support interactions within a lesson plan, and use role play to practice instructional support classroom interactions.

Throughout these activities, participants work in small groups, utilizing discussion, and receive feedback individually from the training facilitator.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

This training aligns with state goals and standards and includes opportunities for active learning experiences. It provides teachers with opportunities to collaborate and supports the success of all learners. It is structured on scientifically-based research demonstrated to facilitate child development and improve student academic achievement and development.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool.

All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Experience and training in using an instructional design process, including learner needs analysis, iterative design and development, and evaluation of training effectiveness.
- Extensive experience using software to create online learning
- Reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Sarah Hadden, Ph.D., Senior Advisor, Training and Professional Development, is an educator with over 30 years of experience. She has been a classroom teacher, a researcher, and a teacher educator. Sarah has extensive experience providing professional development to Head Start programs as well as experience working with teachers for the Virginia Preschool Initiative. In her role as Senior Advisor for Training and Professional Development, she provides both guidance on best practices and fidelity to research models in Teachstone's training and professional development programs. (See Appendix 8.1a for resume/CV)

Lisa Criss, Trainer Manager is responsible for overseeing Teachstone's trainers to ensure all clients get a quality training experience. Lisa has over 20 years of experience in the early childhood field, with 5 years spent in Telamon Corp. Michigan Migrant Head Start. She has 5 years of experience training on various age levels of CLASS. Lisa came to Teachstone with diverse work experiences combined with her education in early childhood, family studies, and a Masters in Management. Lisa Criss oversees all training staff. (See Appendix 8.1a for resume/CV)

Francine Oliver, Senior Manager for Professional Development is responsible for overseeing the implementation and delivery of Teachstone's wide variety of observer support and professional development services. Francine has worked as a public school teacher, teacher educator, instructional coach, and trainer for over 15 years. She comes to Teachstone via the University of Virginia where she earned her MEd in Curriculum and Instruction.

Vicki Kintner-Duffy, Senior Specialist for Coaching provides collaborative coaching for toddler and preschool teachers engaged in the MTP model. Additionally, she provides coding support for observers and serves as Research and Evaluation liaison. Whether helping coaches individualize feedback for their teachers or developing coaching curricula, Vicki uses her skills to research and implement innovative ways to address teachers' professional development needs. Vicki received her Ph.D. and M.S. from the University of North Carolina, with a specialization in Early Childhood Education, and her B.S. in Psychology from Centenary College of Louisiana. She is a certified CLASS Pre-K and Toddler Observer and MTP Specialist.

Anne Tapaszi, Professional Development Specialist was a Head Start teacher in the original MyTeachingPartner study and is now responsible for the provision of MTP training and ongoing support with a cohort of MTP Coaches. This includes introducing coaches to MTP through a 3-day kick-off training and supporting coaches throughout the year as they implement MTP cycles with their teachers. As an MTP Specialist Anne individualizes support techniques for each coach, and assists coaches to maintain fidelity to the MTP research model. Additionally, she provides both CLASS Feedback and Instructional Support Strategies training, facilitates CLASS Observer trainings and Train-the-Trainer sessions, and double-codes classrooms for Observer Support. Anne holds both a B.A. in Communications and a B.S. in Early Childhood Education from the University of Wisconsin and is a member of numerous organizations including NAEYC, MNAYC and WECA.

All of Teachstone's trainers meet the following qualifications:
- Bachelor's degree in education (Master's degree or higher preferred; almost all of Teachstone's trainers have a Master's degree or are in the process of completing a Master's degree)
- demonstrated proficiency using the CLASS to observe and code classrooms and leading CLASS Training Programs (full training provided by Teachstone)
- Maintain reliability for all CLASS age-levels assigned
- exemplary organization, written, and interpersonal communication skills
- curriculum design experience, especially related to design of teacher education programs
- strong customer service orientation
- ability to interest and inspire others
- adept use of technology, including Microsoft Office Suite applications and use of video and multimedia presentation tools
- knowledge of current trends in early-childhood education research and practice
- ease in delivering professional development programs

Trainer hiring process: Candidates are selected based on the qualifications listed above and interviewed. After interviewing, candidates respond to a second round of interview questions via email and submit to another level of screening. The strongest candidates over interview, qualifications, and written exam are selected for training.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

This training in the CLASS instructional support domain aligns with all the readiness standards and milestones related to cognitive development. See Attachment D: Introduction to Teachstone's Approach for additional general information.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Participant recommendations:

- It is recommended that participants have some working knowledge of CLASS and the domains and dimensions.

Resources and space requirements:
- Arrangements for physical training space that is conducive to discussion and video watching and large enough for the number of attendees
- Internet connection
- LCD projector and screen
- speakers
- extension cords
- back-up laptop
- chart paper or dry erase board/markers, tape (for mounting chart paper)
- name plates/tags for participants
- Lunch/breaks for trainer and trainees

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

x	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

x	No
	Yes

In developing this offering, Teachstone conducted a review of literature and used that information to inform development of this evidence-based, CLASS-based offering. Intentional teaching is a critical competency of effective teachers. It is associated with better-quality early childhood programs and stronger outcomes for children.[1] Furthermore, preschool children know when information is being intentionally taught and spend more time exploring materials when a property of the material has been taught to them as opposed to being demonstrated accidentally.[2] This training also includes role-playing activities. We know through research that role-playing provides controlled, experience-based practice theorized to strengthen interpersonal skills and increase self-efficacy.[3] It is widely used in medical training programs to improve provider-patient interactions[4] and has been proven effective at improving interactions in those settings.[5]

References

[1] Williams, J. M., Landry, S. H., Anthony, J. L., Swank, P. R., & Crawford, A. D. (2012). An empirically-based statewide system for identifying quality pre-kindergarten programs. *Education Policy Analysis Archives, 20*. Retrieved 10/22/2013
Access online: http://epaa.asu.edu/ojs/article/view/1014

[2] Butler, L. P. & Markman, E. M. (2012). Preschoolers use intentional and pedagogical cues to guide inductive inferences and exploration. *Child Development, 83*, 1416-1428.

[3] Joyner, B. & Young, L. (2006). Teaching medical students using role play: Twelve tips for successful role plays. *Medical Teacher, 28(3),* 225-229.

[4] Johansson, J., Skeff, K.M., & Stratos, G.A. (2012). A randomized controlled study of role playing in a faculty development programme. *Medical Teacher, 34(2),* 123-128.

[5] Kesten, K. S. (2011). Role-play using SBAR technique to improve observed communication in senior nursing students. *Journal of Nursing Education*, *50*, 79-87.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Face-to-Face Professional Development	
1	Days
7	Hours per Day
n/a	Months to Complete

Please describe, including the time participants will need to commit, here.

A full interactive day of learning focused on effective interactions in the Instructional Support domain builds participants' capacity to apply this knowledge and support colleagues in this area. Hands-on activities, including guided practice, lesson planning and role play, facilitated through modeling and detailed feedback ensure participants leave with deep understanding and applicable strategies.

D-I-7 Effective Coaching Practices with myTeachstone

Brief (15 to 20 Word) Description: An in-depth review of strengths-based coaching with CLASS, and a targeted focus on leveraging myTeachstone to support these coaching practices.

x	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

This in-person, two-day training will prepare coaches to develop their skills, amplify their reach, and go deeper with teachers. Coaches will learn best practices of strengths-based coaching and dig into the easy-to-use tools within myTeachstone that support effective coach-teacher interactions. During the training, coaches will develop a personal plan to drive CLASS behaviors and meaningful change using myTeachstone so that they are ready to hit the ground running when they next connect with their teachers.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
x	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
x	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
x	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
x	Coaches
x	Administrators
	Teacher Assistants
	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

16 hours

5. What are the goals and learning objectives of the professional development offering?

Participants will:
- Identify personal level of skill on key strengths-based coaching behaviors via self-assessment
- Gain familiarity with myTeachstone's navigation and functionality for coaches by viewing common tasks
- Recognize best practices of strengths-based coaching and how myTeachstone's tools support them
- Make a personal plan to drive CLASS behaviors and meaningful change using the myTeachstone system

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

After the two-day training, participants will be given a post-training assessment to measure change from the prerequisite assessment. There will also be a post-training survey that measures satisfaction with the training and facilitator.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

During this interactive training, trainers provide continuous feedback to attendees. Each training may have a maximum of 17 participants, allowing for individualized feedback and support throughout the training.

This training teaches coaches to leverage strengths-based approaches when coaching with the myTeachstone system. It is structured around scientifically-based research on teacher-child interactions that are proven to improve student achievement and development, regardless of special needs or limited English proficiency.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems

- Reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Vicki Kintner-Duffy, Senior Specialist for Coaching provides collaborative coaching for toddler and preschool teachers engaged in the MTP model. Additionally, she provides coding support for observers and serves as Research and Evaluation liaison. Whether helping coaches individualize feedback for their teachers or developing coaching curricula, Vicki uses her skills to research and implement innovative ways to address teachers' professional development needs. Vicki received her Ph.D. and M.S. from the University of North Carolina, with a specialization in Early Childhood Education, and her B.S. in Psychology from Centenary College of Louisiana. She is a certified CLASS Pre-K and Toddler Observer and MTP Specialist.

Mamie Morrow, Professional Development Specialist has over 16 years of diverse experience in education as a teacher, program manager, trainer, and coach to enhance early learning opportunities and outcomes. Currently, she supports MMCI Instructors deepening their CLASS knowledge, providing CLASS-based feedback, and developing interactive training skills to support teachers. Prior to this role at Teachstone, Mamie was an MTP coach wherein she cultivated strong relationships with 18 American Indian Head Start Pre-K teachers in New Mexico and Wisconsin, promoting effective teacher-child interactions, improving classroom organization skills, and enhancing language and literacy instruction. Prior to Teachstone, Mamie supported children in New Mexico, Germany, Guam, Alaska, Japan, Washington, D.C. and Florida. Mamie holds a Masters Degree and Bachelors of Science in Elementary Education from the University of New Mexico. She is a certified CLASS Pre-K and K-3 Observer and Trainer, MTP Coach and MMCI Specialist.

Other trainers of a similar caliber may be hired as demand for this training increases.

(See Appendix 8.1a for resumes/CV's)

All of Teachstone's trainers meet, at a minimum, the following qualifications:
- Bachelor's degree in education (Master's degree or higher preferred; almost all of Teachstone's trainers have a Master's degree or are in the process of completing a Master's degree)
- demonstrated proficiency using the CLASS to observe and code classrooms and leading CLASS Training Programs (full training provided by Teachstone)
- Maintain reliability for all CLASS age-levels assigned
- exemplary organization, written, and interpersonal communication skills
- curriculum design experience, especially related to design of teacher education programs
- strong customer service orientation
- ability to interest and inspire others
- adept use of technology, including Microsoft Office Suite applications and use of video and multimedia presentation tools
- knowledge of current trends in early-childhood education research and practice
- ease in delivering professional development programs

Trainer hiring process: Candidates are selected based on the qualifications listed above and interviewed. After interviewing, candidates respond to a second round of interview questions via email and submit to another

level of screening. The strongest candidates over interview, qualifications, and written exam are selected for training.

10. Describe the alignment to Virginia's Foundation Blocks for Early Learning, Kindergarten Standards of Learning, and Milestones for Child Development, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach for additional general information.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

This training is a supplement to the logistical setup and support included with myTeachstone, providing a deeper dive into effective coaching and professional development practices through use of online tools and resources provided by the system, so is dependent upon the purchase and use of myTeachstone.

Resources and space requirements:
- Arrangements for physical training space that is conducive to discussion and video watching and large enough for the number of attendees
- Laptop computer
- Access to myTeachstone
- Internet connection
- LCD projector and screen
- speakers
- extension cords
- back-up laptop
- chart paper or dry erase board/markers, tape (for mounting chart paper)
- name plates/tags for participants
- Lunch/breaks for trainer and trainees

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

x	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

x	No
	Yes

This training is designed to be differentiated to meet the needs of specific organizations (made up of coaches, teachers, administrators and/or observers). It leverages the evidence base for myTeachstone, is consultative in nature, and helps maximize the potential of the myTeachstone content platform. It is based on a feedback model drawing on evidence-based best practices in providing feedback. Feedback features described in the literature have been incorporated into Teachstone's Effective Coaching Practices with myTeachstone training. See question 12 in *Attachment D-III-2 myTeachstone* for information on the evidence base for myTeachstone.

References used in developing this training:

[1] Archer, J. (2010). State of the science in health professional education: Effective feedback. *Medical Education,* 44, 101-108.

[2] Gigante, J., Dell, M. & Sharkey, A. (2011). Getting beyond "good job": How to give effective feedback. *Pediatrics,* 127(2), 205-207.

[3] Boehler, M.L., Rogers, D.A., Schwind, C.J., Mayforth, R., Quin, J., Williams, R.G., & Dunnington, G. (2006). An investigation of medical student reactions to feedback: A randomized controlled trial. *Medical Education,* 40, 746-749.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Face-to-Face Professional Development	
2	Days
8	Hours per Day
n/a	Months to Complete

Please describe, including the time participants will need to commit, here.

This two-day training gives coaches enough time to learn strategies for implementing strengths-based coaching with myTeachstone as a tool, and to receive consultation on their specific implementation needs.

D-II-1 CLASS Coding Calibration with Live Webinar

Brief (15 to 20 Word) Description:

Calibration supports continued accurate CLASS coding. During Calibration, Certified CLASS Observers practice coding videos, submit their codes to Teachstone for evaluation, and receive immediate feedback.

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

During Calibration, Certified CLASS Observers practice coding videos, submit their codes to Teachstone for evaluation, and receive immediate feedback—all online. Optional follow-up webinars further refine participants' CLASS coding capabilities. Calibration supports observers to be accurate coders of teacher child interactions using the CLASS tool.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
X	Coaches
X	Administrators
	Teacher Assistants
X	Other service providers (CLASS observers)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

2 hours

5. What are the goals and learning objectives of the professional development offering?

Participants will
- practice coding using the CLASS tool
- gauge their reliability and realign their CLASS lens as needed

If re-certifying, calibration will help participants prepare efficiently for re-certification testing and is related to better performance on the re-certification test.

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.
- Participants code a video and then participate in a prerecorded or live webinar led by a CLASS coding expert to evaluate and calibrate differences between their codes and the master codes.
- Participants receive a report showing the differences between their codes and the master codes.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

An active learning experience is provided through the opportunity to code classroom video. The experience is enhanced by the live webinar option which allows participants to ask questions and contribute to a conversation about the video. Individualized feedback is provided in the form of a score report, and the live webinar option also includes group-level feedback. The webinar, whether prerecorded or live is a follow-up to the coding session and provides the master codes and justifications for the video. Webinars are delivered by expert CLASS observers from Teachstone who have much experience in providing support to CLASS observers.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems
- reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Francine Oliver, Senior Manager for Professional Development is responsible for overseeing the implementation and delivery of Teachstone's wide variety of observer support and professional development services. Francine has worked as a public school teacher, teacher educator, instructional coach, and trainer for over 15 years. She comes to Teachstone via the University of Virginia where she earned her MEd in Curriculum and Instruction.

Nikki Croasdale, Observer Support Manager has extensive experience analyzing inter-rater reliability among assessors on the CLASS assessment as she continually supports others in conducting classroom observations with fidelity. She has been using the CLASS tool since 2010, when she worked as a Pre-K CLASS coder and research assistant at the Center for the Advanced Study of Teaching and Learning. She earned her BA in Psychology and Cognitive Science from the University of Virginia. Her expertise is in live and videotaped CLASS coding, and she is certified on all age levels of the CLASS tool, Infant through Secondary.

Other Teachstone staff may deliver observer support services, and will be of a similar caliber to those listed above.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach for additional general information.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Prerequisites:
- Participants need to be certified observers.

Resources:
- stable connection to the internet
- webinar plug ins (instructions will be sent prior to delivery)

● audio and microphone for live webinar participation

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

X	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

X	No
	Yes

The purpose of this training is to maintain and improve reliability to the CLASS tool using master coded videos.

An internal Teachstone study was conducted which showed that calibration participation is related to better performance on the CLASS re-certification test, thus resulting in efficiencies in keeping observers reliable.

For the study, we looked at Pre-K re-certification only, last re-certification test only, and calibration from 2012 to present.

Sample Information	
Re-certification participants	5530
Number who calibrated (%)	263 (4.8%)
Calibrations per participant	1 – 17, mean = 6.2
Average calibration score	88.8%
Average re-certification score	83.6%

Note that most people who participated in calibration were members of larger contracts that received a variety of observer support services, including double coding and coding content webinars, so calibration is a marker for participation in observer support services (OSS).

The comparison group is all coders who re-certified but did not have access to calibration.

Findings showed that:
● 97% of people with OSS passed the re-certification test, compared with 80% of people without OSS.
● In a logistic regression, people with OSS were significantly more likely to pass the test ($b = 2.041$, SE $= .361$, $p < .001$) controlling for performance on the initial certification test.
● 82% of people with OSS passed on the first attempt, compared with 51% of people without OSS.
● In a logistic regression, people with OSS were significantly more likely to pass on the first attempt ($b = 1.470$, SE $= .163$, $p < .001$) controlling for performance on the initial certification test.
● People with OSS scored an average of 87.5% on the re-certification test, compared with 83.6% of people without OSS. In a linear regression controlling for initial certification score, this difference was significant ($b = 4.811$, SE $= .520$, $p < .001$).
● People who did more calibrations did better on re-certification ($b = .604$, SE $= .068$, $p < .001$) controlling for initial certification score.

Online Professional Development	
2	Total Hours
1 hr	Minimum time for each segment/lesson

Please describe, including the time participants will need to commit, here.

Participants spend one hour per session viewing and coding the video and reviewing the score report. Participants spend an additional hour attending the webinar.

D-III-1 Online Introduction to the CLASS Tool

Brief (15 to 20 Word) Description:

This 2-hour online self-study and self-paced program provides users with a general overview of what the CLASS tool is, what effective teacher-child interactions are as defined by the CLASS™ tool, and the ways these interactions help children learn.

	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
x	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

An online self-study, self-paced program is conducive to the introductory content of this offering; one goal of this program is to disseminate information broadly, which is enhanced by the online format. It allows participants to complete the training at a time or times convenient for them.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
x	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
x	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade

	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

x	Teachers
x	Coaches
x	Administrators
x	Teacher Assistants
x	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

2 hours

5. What are the goals and learning objectives of the professional development offering?

Participants will
- Identify the teacher-child interactions measured by the CLASS tool
- Recognize the Emotional Support domain - how teachers interact with children to promote a positive climate, minimize classroom negativity, be sensitive and responsive to children's needs, and show regard for children's perspectives
- Recognize the Classroom Organization domain - how teachers interact with children to manage their behavior, use classroom time productively, and engage children so that they can get the most from classroom activities
- Recognize the Instructional Support domain - how teachers interact with children to support their cognitive development and language growth
- Learn how using the CLASS tool to observe, measure, and improve classroom interactions improves children's academic and social outcomes

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.
- Participants apply their knowledge by answering questions at intervals throughout this interactive program.

- Participants receive a certificate of completion after completing the interactive program
- Participant completion reports can be compiled upon request

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

This online training provides an interactive introduction to the scientifically validated CLASS tool. In addition, it provides an introduction of how to use the CLASS tool to collect data to drive lasting improvement in the classroom. Throughout the two hour session, videos are used to demonstrate effective teacher-child interactions within the CLASS dimensions. This training is available in Spanish and in English.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Experience and training in using an instructional design process, including learner needs analysis, iterative design and development, and evaluation of training effectiveness.
- Advanced knowledge of Learning Management Systems
- reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

N/A.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Resources:
- Participants need internet access to complete this training.

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

x	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

x	No
	Yes

Though not having undergone rigorous research, this interactive online program has been completed by over 18,000 educators across the US and the world. It is specifically designed to provide background knowledge essential for supporting successful implementation, capacity-building, and scaling of CLASS programs. It is not designed to impact teacher growth or child-outcomes, but rather serves to lay the groundwork for further professional development that will provide such impact.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Online Professional Development	
2	Total Hours
20 min	Minimum time for each segment/lesson

Please describe, including the time participants will need to commit, here.

Participants will complete 5 units of approximately 20 minutes each, for a brief but thorough introduction to the CLASS tool.

D-III-2 myTeachstone

NOTE: Please see Appendix 8.3 for terms and conditions applying to the use of myTeachstone.

Brief (15 to 20 Word) Description: myTeachstone is an online subscription service that helps improve teacher-child interactions through the Classroom Assessment Scoring System (CLASS).

	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
x	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

The myTeachstone system delivers on the promise of CLASS, enabling organizations to improve teaching practices and boost children's achievement - now and for the rest of their lives. Based on years of research, myTeachstone couples CLASS observations with meaningful and personalized professional development that enhances existing face-to-face coaching sessions.

It provides the tools CLASS observers, coaches, teachers, and administrators need to promote effective teacher-child interactions, all in one place. Observers enter CLASS observation data into myTeachstone through an iPad app. Coaches couple this CLASS observation data with information about how teachers like to learn and their strengths to recommend content to individual or groups of teachers. Teachers view recommended content and have access to a library of over 1,000 CLASS videos, online courses, PDFs, and articles. They can begin an online dialogue with their coach or peers to enhance their face-to-face coaching sessions or professional learning communities. Administrators have visibility to all activities taking place across their organization, including CLASS observation data, professional development progress, and observer certification status.

There is no specific time commitment required for this method of professional development. Rather than using a one-size-fits-all approach, myTeachstone allows flexible teams of teachers and coaches to tailor professional development to each teacher's needs.

See *Appendix 8.2 myTeachstone Content Inventory* for a full content inventory of professional development resources available through myTeachstone to understand the breadth and depth of content available.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
	a. Quality of teacher-child interactions
x	
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
x	f. Promoting preschool children's critical thinking, problem solving, and other executive

	functions
x	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
x	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

x	Teachers
x	Coaches
x	Administrators
x	Teacher Assistants
x	Other service providers (classroom observers)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

Varies, depending upon the resources assigned to a user and/or the user's own choice to engage with specific resources. Minimum, 1 hour per user.

See *Appendix 8.2 myTeachstone Content Inventory* for a full content inventory of professional development resources available through myTeachstone to understand the breadth and depth of content available.

5. What are the goals and learning objectives of the professional development offering?

myTeachstone makes the CLASS framework scalable and brings effective teacher-child interactions to as many classrooms as possible. With teachers at the center of the system, myTeachstone aims to:

- leverage CLASS observation data, as well as other qualitative data, to ensure that professional development content is relevant to each individual teacher, builds on his or her strengths, and matches preferred learning styles
- provide engaging online content that aligns with teachers' busy schedules and limited time frames for professional development
- offer a blended learning experience that enhances face-to-face coaching sessions with independent learning

For coaches, myTeachstone aims to:

- facilitate data-driven professional development, whereby coaches have access to CLASS observation and other qualitative data to ensure they are designing personalized professional development for teachers
- enhance relationships between teachers and coaches, enabling work to be done offline and their in-person coaching sessions to be more productive and meaningful
- provide professional development on how to offer strengths-based support to teachers on the domains and dimensions of the CLASS tool

For observers, myTeachstone aims to:

- provide a simple way to collect and submit CLASS observation notes and scores
- facilitate CLASS observation scheduling
- track certification status

For administrators, myTeachstone aims to:

- provide visibility into activity across an entire organizations, enabling easy access to observation data, professional development progress, and certification status
- manage all CLASS-related needs in one place
- streamline reporting and communication on CLASS observations and professional development

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

All activity within myTeachstone will be tracked and administrators will have access to all data within their organization. Observation data will be measured against the organizational average and a goal set by the organization. Teachers and coaches will easily be able to view hours of recommended professional development content and progress against those recommendations.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

The content in myTeachstone is aligned with developmentally appropriate teacher-child interactions and pedagogy, and it is structured on research-based classroom interactions correlated with improved student outcomes. The system was designed to ensure that key learning standards are met and that all content is of the highest quality, including:

- Providing teachers with opportunities to collaborate and embedding follow-up and continuous feedback - teachers can collaborate with their coaches and a group of peers through the system, commenting on resources and asking questions.
- Sustained, intensive, and focused interactions with the system that have a lasting impact on classroom instruction and teachers' performance in the classroom - myTeachstone supports the frequency and

intensity of professional development by encouraging frequent contact between teachers and coaches. Teachers and coaches have visibility into progress across recommended online content, as well as access to an online library of resources that they can explore on their own time. The online library is robust and searchable, so teachers and coaches can regularly engage in content that is relevant to their specific goals. Coaches and administrators can easily view frequency of activity within the system, allowing them to tailor support to individual teacher needs.

- Scientifically based researched demonstrated to facilitate child development and improve academic achievement and development - myTeachstone was built on strong research foundations that emphasize proven principles in supporting teacher growth. Teachstone drew on a wide range of research findings from the University of Virginia and other research institutions - research specific to the CLASS framework as well as research on adult learning, implementation, and effective professional development.
- Promotion of the use of data and developmentally appropriate assessments to improve instruction - Through myTeachstone, coaches access CLASS observation data to track teacher progress over time, in relations to the mean, and relative to the goals set by the organization.
- Evaluation after completion to determine if intended results were achieved - myTeachstone creates visibility for all users on related progress in the system so that there can be both ongoing assessments of progress and a final evaluation (after a defined period of time) of if results were achieved. Teachers are able to view their professional development progress and easily see where more work needs to be completed. Coaches can view their teachers' observational data to see growth over time and progress through professional development resources. Administrators have visibility into all aspects of their organization, and they are able to run and export reports on CLASS observations, professional development progress and certification status.

See *Appendix 8.2 myTeachstone Content Inventory* for a full content inventory of professional development resources available through myTeachstone to understand the breadth and depth of content available.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool.

Hilary Ritt, Director of Content Development manages the development of myTeachstone's professional development content. As director, she ensures quality delivery of our trainings for professional development. From design and development to support of effective facilitation, Hilary works across the company to be sure our trainings aimed at improving teacher-child interactions are outstanding. Hilary comes to Teachstone from the University of Virginia teacher-training program where she earned her PhD in Instructional Technology and guided pre-service math and science teachers in the integration of technology into instruction. (See Appendix 8.1b for resume/CV)

All Teachstone staff responsible for developing this offering met the following criteria:
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Experience and training in using an instructional design process, including learner needs analysis, iterative design and development, and evaluation of training effectiveness.
- Reliable on the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

N/A

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Observers should have iPads. If they do not have iPads, they can enter CLASS data manually.

All users will need internet access.

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

x	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

x	No
	Yes

Evidence Base of myTeachstone

Though it has not been independently tested, myTeachstone is built on evidence-based research principles:

1. *Use of coaching to support the transfer to practice* - myTeachstone supports this blended model by using online professional development to enhance face-to-face interactions. Coaches combine CLASS data with information about individual teachers to recommend online content that is data-driven and meets teachers where they are in their growth.

2. *Frequent contact between coaches and teachers* - myTeachstone supports the frequency and intensity of professional development by encouraging frequent contact between teachers and coaches. Teachers and coaches have visibility into progress across recommended online content, as well as access to an online library of resources that they can explore on their own time. The online library of resources is robust and searchable, so teachers and coaches can regularly engage in content that is relevant to their specific goals and readiness levels. Coaches and administrators can easily view frequency of activity within the system, allowing them to tailor support to individual teacher needs.

3. *Strong teacher-coach relationships* - myTeachstone leverages existing coaching and T&TA infrastructure, supports it with new tools and technology, and encourages increased collaboration to strengthen the teacher-coach relationship. Infusing CLASS data with qualitative insights, myTeachstone helps coaches better understand the needs of individual teachers and customize their support accordingly.

4. *Group involvement in professional development* - myTeachstone enables coaches to create teacher groups, recommend online content for group engagement, and facilitate online discussions related to

relevant content. These interactive online discussions are designed to support face-to-face meetings, connect teachers through shared goals and activities, and foster more intentional group learning opportunities.

5. *Use of video to focus teachers' professional lens* - Video is at the heart of myTeachstone. Our online library of resources contains hundreds of real classroom videos, "look for" guides, and reflective questions. The videos are tagged to help users find the most relevant content, and a commenting feature helps coaches facilitate discussion among individual teachers or group learning.

6. *Data-driven individualized coaching supports* - Through myTeachstone, coaches access CLASS observation data to track teacher progress over time, in relation to the mean, and relative to the goals set by the organization.

These principles ensure that the system supports organization-wide investment in improving interactions. By providing data-driven professional development programs, leveraging and enhancing existing coaching infrastructure, individualizing the teacher experience, and offering visibility into progress and adata across the entire organization, myTeachstone delivers on the promise of CLASS: improving teacher-child interactions and boosting child outcomes.

References used in the development of myTeachstone:

Barnett, W. S. (2003). Low wages= low quality: Solving the real preschool teacher crisis. *Preschool Policy Matters, Issue 3.* New Brunswick, NJ: National Institute for Early Education Research.

Becker, K. D., Darney, D., Domitrovich, C., Keperling, J. P., & Ialongo, N. S. (2013). Supporting universal prevention programs: A two-phased coaching model. *Clinical Child and Family Psychology Review, 16(2)*, 213-228.

Bierman, K. L., Nix, R. L., Heinrichs, B. S., Domitrovich, C. E., Gest, S. D., Welsh, J. A., & Gill, S. (2014). Effects of Head Start REDI on children's outcomes 1 year later in different kindergarten contexts. *Child Development, 85(1),* 140–159.

Bierman, K. L., Sanford DeRousie, R. M., Heinrichs, B., Domitrovich, C. E., Greenberg, M. T., & Gill, S. (2013). Sustaining high-quality teaching and evidence-based curricula: Follow-up assessment of teachers in the REDI project. *Early Education and Development, 24(8),* 1194- 1213.

Birman, B. F., Desimone, L., Porter, A. C., & Garet, M. S. (2000). Designing professional development that works. *Educational Leadership, 57(8),* 28-33.

Crawford, A. D., Zucker, T. A., Williams, J. M., Bhavsar, V., & Landry, S. H. (2013). Initial validation of the prekindergarten Classroom Observation Tool and goal setting system for data-based coaching. *School Psychology Quarterly, 28(4),* 277-300.

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad.* Washington, DC: National Staff Development Council and The School Redesign Network at Stanford University.

Delvaux, E., Vanhoof, J., Tuytens, M., Vekeman, E., Devos, G., & Van Petegem, P. (2013). How may teacher evaluation have an impact on professional development? A multilevel analysis. *Teaching and Teacher Education, 36,* 1-11.

Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation and Policy Analysis, 24(2),* 81-112.

Domitrovich, C. E., Gest, S. D., Gill, S., Bierman, K. L., Welsh, J. A., & Jones, D. (2009). Fostering high-quality teaching with an enriched curriculum and professional development support: The Head Start REDI program. *American Educational Research Journal, 46(2),* 567–597.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38(4),* 915-945.

Gersten, R., Dimino, J., Jayanthi, M., Kim, J. S., & Santoro, L. E. (2010). Teacher study group impact of the professional development model on reading instruction and student outcomes in first grade classrooms. *American Educational Research Journal, 47(3),* 694-739.

Neuman, S. B. & Wright, T. S. (2010). Promoting language and literacy development for early childhood educators: A mixed-methods study of coursework and coaching. The Elementary School Journal, 111(1), 63-86.

Penuel, W. R., Fishman, B. J., Yamaguchi, R., & Gallagher, L. P. (2007). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal, 44(4),* 921-958.

Pianta, R. C., DeCoster, J., Cabell, S., Burchinal, M., Hamre, B. K., Downer, J., ... Howes, C. (2014). Dose–response relations between preschool teachers' exposure to components of professional development and increases in quality of their interactions with children. *Early Childhood Research Quarterly, 29(4),* 499-508.

Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher–child interactions in prekindergarten classrooms. *Early Childhood Research Quarterly, 23(4),* 431-451.

Raver, C. C., Jones, S. M., Li-Grining, C. P., Metzger, M., Champion, K. M., & Sardin, L. (2008). Improving preschool classroom processes: Preliminary findings from a randomized trial implemented in Head Start settings. *Early Childhood Research Quarterly, 23(1),* 10–26.

Sherin, M., & van Es, E. (2005). Using video to support teachers' ability to notice classroom interactions. *Journal of Technology and Teacher Education,13(3),* 475-491.

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change, 7(4),* 221-258.

van Es, E. A., & Sherin, M. G. (2008). Mathematics teachers'"learning to notice" in the context of a video club. *Teaching and Teacher Education, 24(2),* 244-276.

Vitiello, V. E., Hadden, S., & the Teachstone Policy Group. (2014). *CLASS System Implementation Guide.* Charlottesville, VA: Teachstone, LLC.

Wehby, J. H., Maggin, D. M., Moore Partin, T. C. M., & Robertson, R. (2012). The impact of working alliance, social validity, and teacher burnout on implementation fidelity of the good behavior game. *School Mental Health, 4(1*), 22-33.

Whitaker, R. C., Dearth-Wesley, T., & Gooze, R. A. (2015). Workplace stress and the quality of teacher-children relationships in Head Start. *Early Childhood Research Quarterly, 30,* 57-69.

Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B., & Shapley, K. L. (2007). *Reviewing the evidence on how teacher professional development affects student achievement (Issues & Answers Report REL 2007-No. 033).* Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest.

Young, B. (2012). *Strategic directions: Technical assistance professionals in state early childhood professional development systems*. Washington, DC: National Association for the Education of Young Children.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.)

Online Professional Development	
varies	Total Hours
vary	Minimum time for each segment/lesson

Please describe, including the time participants will need to commit, here.

There is no specific time commitment required for this method of professional development. Rather than using a one-size-fits-all approach, myTeachstone allows flexible teams of teachers, and coaches to tailor professional development to each teacher's needs.

See *Appendix 8.2 myTeachstone Content Inventory* for a full content inventory of professional development resources available through myTeachstone to understand the breadth and depth of content available.

D-III-3 Instructional Support Strategies for Coaches Online

Brief (15 to 20 Word) Description: This training supports coaches as they deepen their knowledge and capacity related to effective interactions in the CLASS Instructional Support domain.

	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
x	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

The Instructional Support Strategies course is made up of four modules:

This first module provides a solid foundation in understanding of Instructional Support for anyone coaching teachers on Instructional Support. Modules 2, 3, and 4 provide concrete strategies for coaches to integrate into their current coaching practice as they support teachers in improving dimension-specific interactions. These engaging and user-friendly modules will support coaches in guiding teachers to Know, See, and Do interactions through authentic coaching videos and interactive practice.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
	Professional Development Category
X	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
X	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to

	third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
X	Coaches
X	Administrators
	Teacher Assistants
	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

13 hours

5. What are the goals and learning objectives of the professional development offering?

Participants will learn to:
- Describe each dimension in the Instructional Support domain, using indicator and behavioral marker language,
- Identify specific Instructional Support interactions,
- Evaluate the effectiveness of Instructional Support interactions,
- Practice utilizing coaching strategies through simulations and branching scenarios

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.
- Participants apply their knowledge by answering questions at intervals throughout this interactive.
- Participants receive a certificate of completion after completing the interactive program
- Participant completion reports can be compiled upon request

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

This online training provides an interactive examination of the domain of Instruction Support within the scientifically validated CLASS tool. In a flexible, user-friendly online environment, coaches will affirm and deepen their understanding of Instructional Support, learn to introduce teachers to dimensions and indicators, practice answering teacher questions, and learn a strategy for actively engaging teachers in the learning process. This training will also provide concrete strategies for coaches to integrate into their current coaching practice as they support teachers in improving dimension-specific interactions. It will support coaches in guiding teachers to Know, See, and Do interactions through authentic coaching videos and interactive practice.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems
- Experience and training in using an instructional design process, including learner needs analysis, iterative design and development, and evaluation of training effectiveness
- reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

N/A.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Recommended prerequisites:
- existing CLASS content knowledge and/or certification as a CLASS observer

Resources:
- internet connection

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

X	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

X	No
	Yes

In developing this offering, Teachstone conducted a review of literature and used that information to inform development of this evidence-based, CLASS-based offering. Intentional teaching is a critical competency of effective teachers. It is associated with better-quality early childhood programs and stronger outcomes for children.[1] Furthermore, preschool children know when information is being intentionally taught and spend more time exploring materials when a property of the material has been taught to them as opposed to being demonstrated accidentally.[2]

References:

[1] Williams, J. M., Landry, S. H., Anthony, J. L., Swank, P. R., & Crawford, A. D. (2012). An empirically-based statewide system for identifying quality pre-kindergarten programs. *Education Policy Analysis Archives, 20*. Retrieved 10/22/2013
Access online: http://epaa.asu.edu/ojs/article/view/1014

[2] Butler, L. P. & Markman, E. M. (2012). Preschoolers use intentional and pedagogical cues to guide inductive inferences and exploration. *Child Development*, *83*, 1416-1428.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Online Professional Development	
13	Total Hours
3	Minimum time for each segment/lesson

Please describe, including the time participants will need to commit, here.
- Module 1: Essentials
  - 4 hours
  - This first module provides a solid foundation for anyone coaching teachers on Instructional Support. Designed for coaches with CLASS experience, this module answers the question: "How can I get started supporting my teachers' Instructional Support interactions?" Because it

is meant to solidify a coach's understanding of Instructional Support, this module is recommended prior to participating in the additional modules in the course.

- Modules 2-4: Concept Development, Quality of Feedback, Language Modeling
  - 3 hours per Module

Modules 2, 3, and 4 provide concrete strategies for coaches to integrate into their current coaching practice as they support teachers in improving dimension-specific interactions. These module also deepen the coaches' own knowledge of each respective dimension.

D-III-4 Instructional Support Strategies for Teachers Online

Brief (15 to 20 Word) Description:

This training introduces teachers to the Instructional Support domain, giving them concrete ways to improve Instructional Support interactions in their current practice.

	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
x	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

With videos of real classrooms, on-demand access, applicable classroom strategies, and discussion boards, teachers practice strategies for deepening Instructional Support in their classrooms.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
X	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
X	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes

	through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

X	Language and literacy development
X	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
	Social and emotional development

3. Who is your target audience? (Check all that apply.)

X	Teachers
	Coaches
	Administrators
	Teacher Assistants
	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

3 hours

5. What are the goals and learning objectives of the professional development offering?

Teachers who complete the ISS online module will be able to:
- Discuss the dimensions and indicators within the instructional support domain
- Describe effective interactions within the IS dimensions and discuss why those matter for children's learning
- Identify opportunities for including and extending interactions to encourage higher order thinking skills and language development.

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.
- Participants apply their knowledge by answering questions at intervals throughout this interactive program.
- Participants receive a certificate of completion after completing the interactive program
- Participant completion reports can be compiled upon request

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

Teachers learn about the instructional support dimensions of the CLASS tool, complete activities, and watch videos of actual classroom practice as a part of this online program. They reflect on the interactions they observe, receive immediate feedback on their comments, and have opportunities to think about ways to improve effectiveness by encouraging higher order thinking and reasoning skills, providing meaningful

feedback, and developing language. Teachers collaborate on discussion boards facilitated by expert coaches as they apply new knowledge and skills in their classrooms. Individualized, printable goals and strategies support teachers in on-going application and growth efforts.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:

- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems
- Experience and training in using an instructional design process, including learner needs analysis, iterative design and development, and evaluation of training effectiveness
- reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

N/A.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

No prerequisites.

Resources:
- internet connection

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

X	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

X	No
	Yes

In developing this offering, Teachstone conducted a review of literature and used that information to inform development of this evidence-based, CLASS-based offering. Studies suggest that teachers improve their

interactions with children in two ways: by *learning* and by *doing*.[1] In other words, teachers need to learn what effective interactions look like and then try out those more effective interactions in their own teaching.

[1]Pianta, R. C. et al. (2014). A cross-lag analysis of longitudinal associations between preschool teachers' instructional support identification skills and observed behavior. *Early Childhood Research Quarterly, 29,* 144-154.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Online Professional Development	
3	Total Hours
	Minimum time for each segment/lesson

Please describe, including the time participants will need to commit, here.

This self-paced and self-directed online program allows learners to spend time learning concepts and strategies that are most impactful to their practice. Interactions and feedback are used to guide participants in deciding where to focus and when to move on to new concepts. Discussion boards and open-ended activities encourage learners to revisit the program for practice and feedback as they apply new knowledge and skills in order to optimize learners' time investment.

D-III-5 CLASS Feedback Strategies for Coaches Online

Brief (15 to 20 Word) Description:

The CLASS Feedback Strategies training provides concrete strategies for coaches to use when sharing results of a CLASS observation with teachers.

	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
x	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

The CLASS Feedback Strategies course is made up of three twenty-minute modules focusing on how and when to share CLASS scores, how to draft effective feedback for teachers, and the difference between advice and feedback. Example videos provide real-life examples of coaching and case studies allow participants to apply feedback strategies.

Module 1: Scoring Sharing and Focus

The first module covers when to share CLASS scores, ranges, or neither—drawing on case studies to determine when each is appropriate. It also provides guidance around how to focus feedback without overwhelming teachers.

Module 2: Observational Examples

This module covers how to draft observational CLASS examples that are relevant and meaningful to teachers. Coaches will use real classroom videos to learn how to draft feedback that is objective, descriptive, specific, and aligned.

Module 3: Advice or Feedback

This modules covers the differences between advice and feedback, and when each is appropriate when meeting with a teacher.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
X	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
	f. Promoting preschool children's critical thinking, problem solving, and other executive functions

	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

X	Language and literacy development
X	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
X	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
X	Coaches
	Administrators
	Teacher Assistants
	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

1 hour

5. What are the goals and learning objectives of the professional development offering?

Participants will learn about
- Make informed decisions about what CLASS observation information to share with teachers
- Identify key considerations in choosing an area of feedback focus, including organizational and

teacher goals
- Write specific, objective feedback examples from classroom observations
- Apply CLASS language in feedback to teachers
- Differentiate between advice and feedback
- Make informed decisions about whether and how to offer advice
- Turn advice into specific, objective, aligned feedback

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.
- Participants apply their knowledge by answering questions about case studies and video models at intervals throughout this interactive program
- Participants receive a certificate of completion after completing the interactive program

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

This training allows participants (coaches) the opportunity to think about how to provide feedback that is objective and descriptive, leading to a plan for improvement for teachers. It emphasizes the use of CLASS data to inform and individualize professional development opportunities for teachers to improve their interactions with children.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems
- Experience and training in using an instructional design process, including learner needs analysis, iterative design and development, and evaluation of training effectiveness
- Reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

N/A.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Recommended prerequisites:
- observer certification on the CLASS tool and/or CLASS content knowledge

- an internet connection

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

X	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

X	No
	Yes

In developing this offering, Teachstone conducted a review of literature and used that information to inform development of this evidence-based, CLASS-based offering. Research has shown that feedback should be timely, specific, behaviorally based, derived from observation--especially negative feedback, and always accompanied by evidence.[1, 2] In addition, recipients are more satisfied with praise than with constructive, negative criticism, but make greater performance improvement in response to the latter.[3] Feedback features described in the literature have been incorporated in Teachstone's Feedback Strategies training.

References used in developing this training:

[1] Archer, J. (2010). State of the science in health professional education: Effective feedback. *Medical Education,* 44, 101-108.

[2] Gigante, J., Dell, M. & Sharkey, A. (2011). Getting beyond "good job": How to give effective feedback. *Pediatrics,* 127(2), 205-207.

[3] Boehler, M.L., Rogers, D.A., Schwind, C.J., Mayforth, R., Quin, J., Williams, R.G., & Dunnington, G. (2006). An investigation of medical student reactions to feedback: A randomized controlled trial. *Medical Education,* 40, 746-749.

Additional references used in developing this training:

Finkelstein, S.R. & Fishbach, A. (2012). Tell me what I did wrong: Experts seek and respond to negative feedback. *Journal of Consumer Feedback*, *39 (1)*, 22-38.

Locke, E.A. & Latham, G.P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, *57(9)*, 705-717.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Online Professional Development	
1	Total Hours
20	Minimum time for each segment/lesson

Please describe, including the time participants will need to commit, here.

Modules are approximately 20 minutes each.

Module 1: Scoring Sharing and Focus

This module covers when to share CLASS scores, ranges, or neither—drawing on case studies to determine when each is appropriate. It also provides guidance around how to focus feedback without overwhelming teachers.

Module 2: Observational Examples

This module covers how to draft observational CLASS examples that are relevant and meaningful to teachers. Coaches will use real classroom videos to learn how to draft feedback that is objective, descriptive, specific, and aligned.

Module 3: Advice or Feedback

This modules covers the differences between advice and feedback, and when each is appropriate when meeting with a teacher.

D-III-6 CLASS Coding Calibration

Brief (15 to 20 Word) Description:

Calibration supports continued accurate CLASS coding. During Calibration, Certified CLASS Observers practice coding videos, submit their codes to Teachstone for evaluation, and receive immediate feedback.

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

During Calibration, Certified CLASS Observers practice coding videos, submit their codes to Teachstone for evaluation, and receive immediate feedback—all online. Optional follow-up webinars further refine participants' CLASS coding capabilities. Calibration supports observers to be accurate coders of teacher child interactions using the CLASS tool.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development

x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

	Teachers
X	Coaches
X	Administrators
	Teacher Assistants
X	Other service providers (CLASS observers)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

2 hours

5. What are the goals and learning objectives of the professional development offering?

Participants will
- practice coding using the CLASS tool
- gauge their reliability and realign their CLASS lens as needed
- if re-certifying, calibration will help participants prepare efficiently for re-certification testing and is related to better performance on the re-certification test

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.
- Participants code a video and then complete an interactive online course to evaluate and calibrate differences between their codes and the master codes.
- Participants receive a report showing the differences between their codes and the master codes.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

An active learning experience is provided through the opportunity to code classroom video. Individualized feedback is provided in the form of a score report. The course following the video helps the participant calibrate his or her own CLASS lens by evaluating differences between their codes and the master codes.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices

- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems
- reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

N/A

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach for additional general information.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Prerequisites:
- Participants must be certified CLASS observers.

Resources:
- stable connection to the internet
- webinar plug ins (instructions will be sent prior to delivery)

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

X	No
	Yes

If no, is the proposed professional development offering currently undergoing rigorous evaluation, as defined in Section III of this Request for Proposals?

X	No
	Yes

The purpose of this training is to maintain and improve reliability to the CLASS tool using master coded videos.

An internal Teachstone study was conducted which showed that calibration participation is related to better performance on the CLASS re-certification test, thus increasing efficiency of maintaining reliability and ensuring data quality.

 For the study, we looked at Pre-K re-certification only, last re-certification test only, and calibration from 2012 to present.

Sample Information	
Re-certification participants	5530

Number who calibrated (%)	263 (4.8%)
Calibrations per participant	1 – 17, mean = 6.2
Average calibration score	88.8%
Average re-certification score	83.6%

Note that most people who participated in calibration were members of larger contracts that received a variety of observer support services, including double coding and coding content webinars, so calibration is a marker for participation in observer support services (OSS).

The comparison group is all coders who re-certified but did not have access to calibration.

Findings showed that:
- 97% of people with OSS passed the re-certification test, compared with 80% of people without OSS.
- In a logistic regression, people with OSS were significantly more likely to pass the test ($b = 2.041$, $SE = .361$, $p < .001$) controlling for performance on the initial certification test.
- 82% of people with OSS passed on the first attempt, compared with 51% of people without OSS.
- In a logistic regression, people with OSS were significantly more likely to pass on the first attempt ($b = 1.470$, $SE = .163$, $p < .001$) controlling for performance on the initial certification test.
- People with OSS scored an average of 87.5% on the re-certification test, compared with 83.6% of people without OSS. In a linear regression controlling for initial certification score, this difference was significant ($b = 4.811$, $SE = .520$, $p < .001$).
- People who did more calibrations did better on re-certification ($b = .604$, $SE = .068$, $p < .001$) controlling for initial certification score.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Online Professional Development	
2	Total Hours
2	Minimum time for each segment/lesson

Please describe, including the time participants will need to commit, here.

Participants spend one hour per session on viewing and coding the video and reviewing the score report. Participants spend an additional hour completing the follow-up course.

D-IV-1 MyTeachingPartner^{TM} Coaching

1. Name of Professional Development Offering: MyTeachingPartner (MTP) Coaching

Brief (15 to 20 Word) Description: MyTeachingPartner (MTP) is a research-based, intensive, one on one coaching program. Coaches observe teacher's classroom videos throughout the school year and partner with teachers to improve the quality of their interactions with children.

	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
X	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

Ongoing video observation and feedback cycles, completed throughout the year, provide the foundation of MTP. Every two weeks, coaches and teachers repeat a 5-step MTP cycle. As part of this cycle, information about the teacher's classroom is captured on video, which is sent to the coach for analysis. The coach provides feedback in the form of an edited video and written prompts. Once the teacher reviews the coach's feedback and responds to the prompts, they meet to discuss the interactions noted in the teacher's video and address any questions. Finally, the coach sends the teacher a summary of the conference's key points and an action plan, developed collaboratively during the conference, to inform the next cycle.

MTP coaching is effective in improving the quality of teacher-child interactions through adherence to the following guiding principles:
- Focused on teacher-child interactions
- Anchored in teacher's actual practice
- Based on a validated framework for observing interactions
- Embedded in ongoing, collaborative relationships
- Delivered through a standardized process

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
X	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
X	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
X	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners

	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

x	Teachers
x	Coaches
	Administrators
x	Teacher Assistants
	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

1 coach in Year 1: 64 hours

1 coach in Year 2 (Stage 1 Credentialing: 11 hours

1 coach in Year 3 (Stage 2 Credentialing): 5 hours

5. What are the goals and learning objectives of the professional development offering?

The fundamental goal for MTP coaches' work with teachers is to improve teaching practice. Coaches help teachers realize this goal by providing a structured framework in which they work together to achieve the following related goals and objectives.

Goals for Teachers:
- Become better observers of their own teaching practices

- Use the CLASS lens to understand and describe teacher-child interactions
- Feel more effective in interacting with children
- Intentionally create more learning opportunities for children
- Improve implementation of curricula and lessons

Goals for Coaches:
- Maintain supportive relationships with teachers
- Use the CLASS tool as a lens to view teaching practice
- Provide teachers with individualized, regular feedback about their practice
- Collaborate with teachers to make the MTP process most meaningful

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

In their first year of coaching, referred to as phase 1, coach cycle work is reviewed by the Teachstone MTP specialist on a bi-weekly basis. A cycle feedback form is used to assess coach fidelity to the MTP model, including quality of edited video, thoroughness of written prompts, frequency of cycles, and effectiveness of conference sessions and action plans. Coaches meet with a MTP Specialist from Teachstone on a regular basis to review their cycle work and cycle feedback form scores and to reflect on and discuss each teacher's progress.

In order to move on to phase 2, the first year of coach credentialing, the coach must meet the following standards during their phase 1 coaching:
- Cycle Feedback Form (CFF) average of at least 94%
- Cycle average minimum of 10 cycles per teacher across program year
- Experience supporting at least 2 teachers

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

MyTeachingPartner coaching is focused on teacher-child interactions and is anchored in teacher's actual practice. It is based on a validated framework and is delivered in a standardized way, using the CLASS to provide a common lens for understanding and discussing interactions linked to social and academic progress. MTP is embedded in collaborative, ongoing relationships. The coaches' ongoing, supportive feedback allows teachers to feel more comfortable talking about classroom challenges and opportunities for growth without worrying about how these discussions might affect their performance evaluations. The use of the CLASS framework provides teachers and coaches the opportunity to have open, guided discussions about teaching practices known to make a difference in children's learning.

8. Describe qualifications of the individuals/staff who developed this offering.

Robert C. Pianta is Dean of the Curry School of Education at the University of Virginia. He also holds positions as the Novartis Professor of Education, Founding Director of the Curry School's Center for Advanced Study of Teaching and Learning (CASTL), held position as Professor of Psychology at the UVa College of Arts & Sciences, and Director of the National Center for Research in Early Childhood Education.

Pianta's research and policy interests focus on teacher-student interactions and relationships and on the improvement of teachers' contributions to students' learning and development. He is the author of more than 250 articles, 50 book chapters, and 10 books, and has been a principal investigator on research and training grants totaling over $55 million. He served as the editor of the Journal of School Psychology from 1999 to 2007.

Among other research measures and instruments, Pianta is the creator of an observational assessment of teacher-student interactions known as the Classroom Assessment Scoring System™ or CLASS, with versions for use with infants through twelfth grade students, all of which have been shown to capture features of teacher-student interactions that contribute to learning and development. CLASS is used by every Head Start program in the country, affecting 50,000 teachers and over half a million students.

Pianta has also developed a series of proven-effective professional development supports engineered to improve teachers' effectiveness in the classroom. Called MyTeachingPartner™ or MTP, these supports include a web-mediated approach to individualized coaching on teacher-student interactions, a video library of effective interactions, and a college course. (See Appendix 8.1b for resume/CV)

Bridget Hamre is a Research Associate Professor in the Curry School of Education at UVA. Dr. Hamre's areas of expertise include student-teacher relationships and classroom processes that promote positive academic and social development for children. This work documents the ways in which teacher-child relationships are predictive of academic and social development and the ways in which exposure to effective classroom social and instructional interactions may help close the achievement gap for students at risk of school failure.

With Drs. Robert Pianta and Karen La Paro, she authored an observational tool for classrooms called the Classroom Assessment Scoring System (CLASS). Dr Hamre leads efforts to use the CLASS as an assessment, accountability, and professional development tool in early childhood and other educational settings. She has recently worked with leaders in several states and the Office of Head Start to implement CLASS as a tool to enhance teacher-child interactions through accountability and professional development systems. (See Appendix 8.1b for resume/CV)

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Francine Oliver, Senior Manager for Professional Development is responsible for overseeing the implementation and delivery of Teachstone's wide variety of observer support and professional development services. Francine has worked as a public school teacher, teacher educator, instructional coach, and trainer for over 15 years. She comes to Teachstone via the University of Virginia where she earned her MEd in Curriculum and Instruction.

Vicki Kintner-Duffy, Senior Specialist for Coaching provides collaborative coaching for toddler and preschool teachers engaged in the MTP model. Additionally, she provides coding support for observers and serves as Research and Evaluation liaison. Whether helping coaches individualize feedback for their teachers or developing coaching curricula, Vicki uses her skills to research and implement innovative ways to address teachers' professional development needs. Vicki received her Ph.D. and M.S. from the University of North Carolina, with a specialization in Early Childhood Education, and her B.S. in Psychology from Centenary College of Louisiana. She is a certified CLASS Pre-K and Toddler Observer and MTP Specialist.

Mamie Morrow, Professional Development Specialist has over 16 years of diverse experience in education as a teacher, program manager, trainer, and coach to enhance early learning opportunities and outcomes. Currently, she supports MMCI Instructors deepening their CLASS knowledge, providing CLASS-based feedback, and developing interactive training skills to support teachers. Prior to this role at Teachstone, Mamie was an MTP coach wherein she cultivated strong relationships with 18 American Indian Head Start Pre-K teachers in New Mexico and Wisconsin, promoting effective teacher-child interactions, improving

classroom organization skills, and enhancing language and literacy instruction. Prior to Teachstone, Mamie supported children in New Mexico, Germany, Guam, Alaska, Japan, Washington, D.C. and Florida. Mamie holds a Masters Degree and Bachelors of Science in Elementary Education from the University of New Mexico. She is a certified CLASS Pre-K and K-3 Observer and Trainer, MTP Coach and MMCI Specialist.

Anne Tapaszi, Professional Development Specialist was a Head Start teacher in the original MyTeachingPartner study and is now responsible for the provision of MTP training and ongoing support with a cohort of MTP Coaches. This includes introducing coaches to MTP through a 3-day kick-off training and supporting coaches throughout the year as they implement MTP cycles with their teachers. As an MTP Specialist Anne individualizes support techniques for each coach, and assists coaches to maintain fidelity to the MTP research model. Additionally, she provides both CLASS Feedback and Instructional Support Strategies training, facilitates CLASS Observer trainings and Train-the-Trainer sessions, and double-codes classrooms for Observer Support. Anne holds both a B.A. in Communications and a B.S. in Early Childhood Education from the University of Wisconsin and is a member of numerous organizations including NAEYC, MNAYC and WECA.

Julie Rand, Professional Development Specialist in her role as MTP Coach/Specialist works closely with educators who are focused on improving student-child interactions. She uses her extensive knowledge of the Pre-K and Toddler CLASS tools to provide collaborative trainings using the MTP model, facilitate weekly conference calls with coaches and support preschool and toddler teachers participating in Making the Most of Classroom Interactions program. Julie earned a Master's Degree in Early Childhood Studies with a specialization in Teaching Adults in the Early Childhood Education Field from Walden University and a Bachelor of Science Degree in Early Childhood Education from Chaminade University. As was a former teacher's aide, teacher, Center Director and Head Start Specialist from Hawai'i to New York, Julie has dedicated herself to supporting those in the field of Education working to ensure measurable, positive student outcomes.

(See Appendix 8.1a for resumes/CV's)

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

See Attachment D: Introduction to Teachstone's Approach.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Prerequisites:
- Phase 1: Coaches need to be reliable CLASS observers on the age level they will coach.
- Phase 2: Coaches must complete full support year and meet the following:
  - Cycle Feedback Form (CFF) average of at least 94%
  - Cycle average minimum of 10 cycles per teacher across program year
  - Experience supporting at least 2 teachers

Resources:
- Arrangements for physical training space for on-site, 3-day MTP Coach Training that is conducive to discussion and video watching, Internet connection, LCD projector, screen, speakers, extension cords, back-up laptop, chart paper or dry erase board/markers, tape (for mounting chart paper), and name plates/tags for participants
- Lunch/breaks for MTP Specialist and coaches for on-site, 3-day MTP Coach Training MTP Teacher Participant Package

- All materials are provided as part of the training and are included in the cost of the training. Each teacher is required to have an approved i-device (for example an iPod Touch, iPad, or iPhone) and high-speed wireless Internet access. Teachers may use their own device if it meets the MTP technology requirements outlined in the MTP Welcome Packet. Teachstone also offers an technology kit meeting these requirements.

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

	No
x	Yes

If yes, in the space below, summarize the evaluation methods, the population in which the program has been subject to rigorous evaluation (as defined in this proposal), and provide documentation verifying the results have been subject to an external peer review process by including a copy of the study just after this attachment. (For example, if the Attachment name is D-I-1, within Tab 6 of your proposal, include it after attachment D-I-1).

MyTeachingPartner Coaching (MTP) was developed by researchers at the University of Virginia. It is a structured coaching program in which teachers work one-on-one with a coach over a 10-month period. In a randomized, controlled trial, participation in MTP coaching led to significant gains in teacher- child interactions in all three CLASS domains. [1] Furthermore, children in the MTP classrooms made greater language and literacy gains compared to children in the control group.[2]

MyTeachingPartner coaching has been used for the past three years as part of First Five California's Cares Plus program. In their first evaluation report released in April 2014, they noted that "...significant gains in instructional support were made by only participants in the MyTeachingPartner Coaching (MTP) track. MTP as a professional growth and coaching model, may hold the most promise for improving the quality of interaction between teachers and young children.[3]

Georgia's Department of Early Care and Learning used MyTeachingPartner and Making the Most of Classroom Interactions with teachers around the state. For teachers participating in MTP, Emotional Support increased, as compared to the control group. [4]

References

[1] Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. *Early Childhood Research Quarterly, 23(4)*, 431-451. (**NOTE: Teachstone cannot reproduce research articles under copyright. Therefore, Teachstone has not included copies of this particular publication as instructed by Marie Williams, Contract Officer, on July 6, 2015.**)

[2] Mashburn, A. J., Downer, J. T., Hamre, B. K., Justice, L. M., & Pianta, R. C. (2010). Consultation for teachers and children's language and literacy development during pre-kindergarten. *Applied Developmental Science, 14(4),* 179-196. (**NOTE: Teachstone cannot reproduce research articles under copyright. Therefore, Teachstone has not included copies of this particular publication as instructed by Marie Williams, Contract Officer, on July 6, 2015.**)

[3] *Cares Plus Round 1 Evaluation*
Access online here: http://www.ccfc.ca.gov/pdf/commission/meetings/handouts/Commission-

Handouts_2014-04/Item_13_-_CARES_Plus,_Round_1,_Evaluation_Findings_Update.pdf *Findings* **(A copy of this report is included in this section immediately following question 13.)**

[4] *Georgia DECAL Study,* conducted by Frank Porter Graham Child Development Center, Chapel Hill NC *(A copy of this report is included* **Attachment D-IV-2 Making the Most of Classroom Interactions** *mediately following question 13.)*
Access online here: http://www.fpg.unc.edu/projects/georgia-pre-kindergarten-evaluation

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

The tables below are meant to show total time spent by MTP Coaches and teachers participant in the MTP program. They are inclusive of time the coach spends with Teachstone and the time Coaches and teachers spend together implementing MTP. The standard values requested in Attachment D of the RFP are addressed below each table and reflect the time coaches spend in MTP Training or working with a Teachstone MTP Specialist. These totals are used to calculate the per hour cost in Attachment E: Pricing Schedule.

Year 1: MTP Coach Training and Implementation

	MTP Component	Time Breakdown	Total Time over 10 mo.
Coach Professional Development	Initial Face-to-Face Coach Training (with Teachstone	8 hours/day 3 days	24 hours
	Ongoing Coach Support (with Teachstone)	1 hour/week; 10 month duration	40 hours
	Coach Total with Teachstone		**64 hours**
	Initial Kick-Off Teacher/Coach Training	3 hours	3 hours
	Coaching Teachers using MTP Model (Hours for 1 teacher)	~5 hours/2-week cycle/teacher; 10 month duration	~100 hours per teacher**
	Coach Total with each Teacher		**103 hours**
Teacher Professional Development	Initial Kick-Off Teacher/Coach Training	3 hours	3 hours
	Teachers Participating in MTP Coaching (Hours for 1 teacher)	~2.5 hours/2 week cycle; 10 month duration max 20 cycles	~50 hours
	Teacher Total with Coach		**~53 hours/year**

*Up to 10 coaches can attend a MTP Coach Training.

**A MTP coach can work with up to 15 teachers. The average time spent by a coach per teacher per year is 100 hours, so if a coach had 5 teachers, he/she would spend approximately 500 hours per 10 month program on MTP coaching.

(Attachment D Format) Year 1: MTP Coach Training and Implementation: COACH with Teachstone

Combination	
3	Days of Face-to-Face Professional Development
8	Hours per day of Face-to-Face Professional Development
40	Total Hours Online Professional Development
1 hr	Minimum time for each segment/lesson of Online Professional Development

Year 2: Stage 1 - MTP Coach Credentialing and Implementation

	MTP Component	Time Breakdown	Total Time over 10 mo.
Coach Professional Development (with Teachstone)	Refresher Coach Training via live webinar (with Teachstone)	4 hours	4 hours
	Ongoing Coach Support (with Teachstone)	1 hour/call; 3 over the course of the 10 month duration; live webinars also offered (1 hr ea; 4 total)	7 hours
	Coach Total with Teachstone		**11 hours**
Coach Time with Teacher	Initial Kick-Off Teacher/Coach Training	3 hours	3 hours
	Coaching Teachers using MTP Model (Hours for 1 teacher)	~5 hours/2-week cycle/teacher; 10 month duration	~100 hours per teacher**
	Coach Total Time with each Teacher		**103 hours**
Teacher Time with Coach	Initial Kick-Off Teacher/Coach Training	3 hours	3 hours
	Teachers Participating in MTP Coaching	~2.5 hours/2 week cycle; 10 month duration max 20 cycles	~50 hours
	Teacher Total Time with Coach		**~53 hours/year**

Stage 1 Credentialing (Year 2): MTP Coach Training and Implementation: COACH with Teachstone

Combination	
0	Days of Face-to-Face Professional Development
0	Hours per day of Face-to-Face Professional Development
11	Total Hours Online Professional Development
1 hr	Minimum time for each segment/lesson of Online Professional Development

Year 3: Stage 2 - MTP Coach Credentialing and Implementation

	MTP Component	Time Breakdown	Total Time over 10 mo.
Coach Professional Development (with Teachstone)	Ongoing Coach Support (with Teachstone)	not required; phone and online support on as needed basis, live webinars offered but not included in the price (1 hr ea; 4 total)	~5 hours
	Coach Total with Teachstone		**5 hours**
Coach Time with Teacher	Initial Kick-Off Teacher/Coach Training	3 hours	3 hours
	Coaching Teachers using MTP Model (Hours for 1 teacher)	~5 hours/2-week cycle/teacher; 10 month duration	~100 hours per teacher**
	Coach Total Time with each Teacher		103 hours
Teacher Professional Development	Initial Kick-Off Teacher/Coach Training	3 hours	3 hours
	Teachers Participating in MTP Coaching (Hours for 1 teacher)	~2.5 hours/2 week cycle; 10 month duration max 20 cycles	~50 hours
	Teacher Total		**~53 hours/year**

Stage 2 Credentialing (Year 3): MTP Coach Training and Implementation: COACH with Teachstone

Combination	
0	Days of Face-to-Face Professional Development
0	Hours per day of Face-to-Face Professional Development
5	Total Hours Online Professional Development
1 hr	Minimum time for each segment/lesson of Online Professional Development

Description of Time Spent on MTP

Coaches:

The initial 3-day coach training and the initial teacher kick off meeting (3 hours) are done face-to-face.

The MTP cycle work is ongoing for 10 months. Coaches spend approximately 5 hours per teacher per 2-week cycle, so the total amount of time spent depends on the number of teachers each coach supports. Coach time is spent viewing and editing video, writing prompts, preparing for and leading teacher conferences with each

teacher he/she is coaching. Coach-teacher conferences can be done face-to-face or remotely by phone or a video/audio chat program.

In the first year of implementation, coaches also participate in one-on-one and group coach support calls led by a Teachstone Specialist for approximately 1 hour per week.

Teachers:

Teachers spend approximately 2.5 hours per 2-week cycle prepping for their recording and their conferences, recording their classroom practice, reviewing video and responding to prompts, and conferencing with coaches.

The MTP program protocol provides a structure that guides MTP's year-long process and ensures that all teachers receive relevant and effective support that is still individualized to the teacher's unique needs. With the coach and teacher having clear roles and responsibilities, the process flows smoothly and maximizes teacher's gains and children's growth over the course of the year.

MTP Coach Credentialing:

After satisfactory completion of phase 1, coaches may participate in Teachstone's coach credentialing program. In phase 2 for coaches, the first year of the credentialing program, coaches attend a half-day refresher training by webinar, and their support time is reduced to three individual calls (one hour each) and invitations to attend four webinars over the school year (one hour each).

CARES PLUS, ROUND 1, EVALUATION FINDINGS UPDATE

SUMMARY

First 5 California and participating Lead Agencies launched the first round of Comprehensive Approaches to Raising Educational Standards Plus, or CARES Plus, for the three-year period beginning in Fiscal Year (FY) 2010-11 through FY 2012-13. Evaluation of CARES Plus, Round 1, consists of three views of the program involving different sources of information: 1) the participant view based on online surveys with participants; 2) assessment of the quality of teacher-child interactions for participants using a validated observation instrument; and 3) the Lead Agency view about operational aspects of running the program locally, based on information provided by Lead Agency administrators. This agenda item addresses the second view of the program evaluation and includes a summary of participant demographics and analyses of data collected by observations with the *Classroom Assessment Scoring System™ (CLASS™)* instrument.

With regard to the participant view, participants rated the program highly and found the training provided in multiple components (or tracks) offered by the program to be very useful. With regard to observational assessment of the quality of teacher-child interaction for participants, analyses of data collected with *CLASS* demonstrate that the two program components providing coursework in Early Childhood Education/Child Development (ECE/CD) supported improvement in the domains of Emotional Support and Classroom Organization. However, significant gains in Instructional Support were made only by participants in the *My Teaching Partner™ (MTP™)* track. *MTP,* as a professional growth and coaching model, may hold the most promise for improving the quality of interaction between teachers and young children.

BACKGROUND

In April 2010, the State Commission approved funding for three years (FY 2010-11 through FY 2012-13) to support the CARES Plus program to further the work of its predecessor program, CARES. The Commission directed that these funds be used to increase the quality of early learning programs for children ages 0-5 and their families by supporting the education and preparation of an effective, well-compensated, and diverse early care and education workforce (First 5 California, 2010). During CARES Plus, Round 1, four program components were available to participants: Component A, 21 hours of evidenced-based training approved by the California Department of Education; Component B, a minimum of six units of higher education toward a degree in ECE/CD; Component C, serving as a local

CARES Plus advisor; and Component D, a one-on-one professional growth coaching model called *MTP*. Additionally, first year participants were required to complete three CORE online courses: *Introduction to the CLASS*^{TM}, *Looking at CLASSrooms*^{TM}, and *Kids and Smoke Don't Mix*. Annually, each participant was required to meet twice with a CARES Plus Advisor, develop a Professional Growth Plan, and select an elective program component (A, B, C, or D).

EVALUATION AND DATA COLLECTION

Evaluation of the CARES Plus program is comprised of three views of the program involving different sources of information:

- **Participant View:** During FYs 2011-12 and 2012-13, First 5 California conducted online surveys with program participants. The purpose of the surveys was to assess areas of satisfaction, success, or challenge from the participants' point of view. For Round 1, survey responses were most recently presented to the Commission on October 23, 2013.

- **Research-Based Assessment View:** Using observations with *CLASS,* a validated research instrument, the quality of teacher-child interaction was assessed for participants in three of the program components of CARES Plus. This agenda item describes findings for these *CLASS* data analyses.

- **Lead Agency View:** The Quality Performance Report (QPR) gathered information from Lead Agencies about institutional and operational aspects of running the program to assess program successes and challenges from the Lead Agency point of view. QPR information was collected by telephone interview or in writing from Round 1 Lead Agencies and is currently undergoing content analysis by First 5 California. Summary information from the Round 1 QPR will be presented at a future commission meeting.

During the first year of CARES Plus, Round 1 (FY 2010-11), no data were collected—the first year was spent on program preparation activities. First 5 California collected evaluation data during the second and third years of the program, FYs 2011-12 and 2012-13, including program participant demographic data, two participant surveys, and analyses of classroom observations collected with the *CLASS* instrument to assess quality of teacher-child interaction.

FINDINGS

Key findings of the CARES Plus, Round 1, program evaluation to date relate to participant characteristics and experience, and analyses of *CLASS* data.

Program Participant Findings

1) **The CARES Plus program served a diverse cross-section of California's early care and education workforce.** Among the 10,910 participants enrolled in FYs 2011-12 and 2012-13, key demographic characteristics were the following: 89% or more were female; by race/ethnic category, 40% were Hispanic/Latina, 24% White, 9% Asian, 8% African American, 6% Other, 2% Alaska Native or American Indian, and less than 1% Pacific Islander (11% did not indicate race/ethnicity); levels of education ranged from less than high school to doctorate, with 73% of participants having attained less than a BA degree (Table 1). Participants enrolled from 33 counties throughout California (Table 2). Many participants have worked in the field of early care and education for a long time—51% for more than 10 years (CARES Plus Survey, FY 2012-13).

2) **Initial enrollments experienced a 25% dropout rate.** For FYs 2011-12 and 2012-13 combined, approximately 25% (2,693) of initial enrollees withdrew, while 75% (8,217) were able to complete the program (n=10,910). This somewhat high dropout rate appeared to occur soon after initial enrollment as participants attempted to sign up for the program components, and as Lead Agencies worked to approve enrollments. This initial churn and dropout in enrollments made random sampling of program participants for observation with *CLASS* somewhat difficult.

3) **Respondents to the two participant surveys expressed high satisfaction with the program.** In the most recent and comprehensive survey (FY 2012-13), 80 percent of respondents reported the CARES Plus program was very useful for their professional development, would enable them to stay in the field of early childhood education, and would have a positive impact on the children in their care. Key features the program respondents found helpful were online training (72%), a monetary stipend in support of participant training (69%), and access to an advisor who could help participants with a professional development plan (47%). Survey respondents suggested the program could be improved with regard to training of advisors, access to advisors and online training, and better communication between Lead Agencies (counties) and participants. Following the two participant surveys, First 5 California program staff addressed these concerns with special trainings for advisors in Lead Agencies.

CLASS Observational Assessment Findings

Methods

Quality of interaction was assessed with the Pre-K version of the *CLASS* instrument developed at the University of Virginia (Pianta et al. 2008). In published research, high quality of classroom interaction between teachers and children, as assessed by the *CLASS* instrument, have been linked to improved child outcomes in the domains of social-emotional, language, and mathematics development (Mashburn et al. 2008, Burchinal et al. 2010, Sabol et al. 2013). The Pre-K *CLASS* instrument addresses three domains of

teacher-child interaction: Emotional Support, Classroom Organization, and Instructional Support. Scores for each of the three domains are constructed based on the quality of interaction in underlying dimensions: Emotional Support (dimensions: Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Student Perspectives), Classroom Organization (dimensions: Behavior Management, Productivity, Instructional Learning Formats), and Instructional Support (dimensions: Concept Development, Quality of Feedback, Language Modeling). Scoring is completed at the dimension level using a 7-point scale with ranges considered as low (1-2), middle (3-5), and high (6-7) (Hamre et al. 2009). For CARES Plus, observations were coded for interaction of the individual program participant with children in the classroom, rather than the standard use of CLASS to code interaction of all teacher/caregiver adults with children in the classroom.

For this evaluation, certified observers, hired through the Child Development Training Consortium, used the *CLASS* instrument to code teacher-child interactions in three domains: Emotional Support, Classroom Organization, and Instructional Support. For CARES Plus, the *CLASS* instrument was used to code observations of the focal program participant in a pre-post design: pre observations were to be made in the fall of each program year, and post observations were to be made in the spring of each program year. To decrease costs associated with travel by in-person observers, all observations were made by self-recorded video, then mailed to *CLASS* coders. Participants in three program components of CARES Plus were assessed using *CLASS*: for Component A, a statewide random sample was observed; for Component B, a statewide random sample was observed; and for Component D, all participants were observed. For FYs 2011-12 and 2012-13 combined, usable observations with complete pre-post observation data were collected for 88 participants in Component A, 211 participants in Component B, and 315 participants in Component D.

During the first year of data collection, FY 2011-12, logistical difficulties in implementing the program and its evaluation produced small sample sizes for each program component and created a short timeframe between pre- and post-intervention observations (approximately two to three months, mostly during spring 2012). During the second year of data collection, FY 2012-13, the process of program enrollment and sampling for *CLASS* observations for participants in program components A and B went more smoothly. As a result, during the second year, sample sizes were larger and the time window between pre- and post-intervention observations was approximately three to six months.

For the purpose of analyses presented here, statistical significance is held at the 95% confidence level ($p < .05$) using a paired t-test for pre- and post-observation scores in each *CLASS* domain (Table 3). Because statistical tests of significance are often driven by sample size, effect sizes also were computed to assess the magnitude of the shift in pre- and post-observation scores (Ellis 2010, Grissom and Kim 2005, Morris and DeShon 2002). During FY 2012-13, effect sizes for statistically significant improvements in *CLASS* scores ranged from 0.20 to 0.44—well within a reasonable range of effect sizes published for other evaluations of education-related interventions (Hill et al. 2007, Slavin and Smith 2008). For shift in means, conventional interpretation of computed effect size is small at 0.2, medium at 0.5, and large at 0.8 (Cohen 1988, 1992). Thresholds, or cut-points, for percentage shifts in *CLASS* scores were based on the Tiered Quality Rating and

Improvement System (TQRIS) implementation guide for California's Race to the Top-Early Learning Challenge, using the 4-point value for *CLASS* scores in the "Effective Teacher-Child Interactions" element (California Department of Education 2014). Given available evidence, *CLASS* scores of 5 in Emotional Support, 5 in Classroom Organization, and 3 in Instructional Support are likely thresholds for improved child outcomes. Because both pre- and post-observations shared the same denominator of participants, McNemar's test (McNemar 1947) was used to assess significance of shifts in the percentage of participants meeting thresholds (Table 4).

Quality of teacher-child interaction improved in domains assessed by *CLASS*, but improvement differed by program component. Program Components A and B supported improvement in scores for Emotional Support and Classroom Organization, but only Component D improved scores for Instructional Support.

For the first year of data collection, statistically significant improvements in *CLASS* scores were only detected for Component D in the domains of Classroom Organization and Instructional Support. During the second year of data, program and evaluation efforts were better organized so sample sizes were larger for each program component and pre- and post-intervention observations were separated by three to six months--likely making significant shifts in score changes more detectable by allowing a more reasonable time for teaching skills to improve.

For the second year of data collection, statistically significant improvements were found for Component A in the Emotional Support and Classroom Organization domains; Component B in the Emotional Support and Classroom Organization domains; and Component D in the Classroom Organization and Instructional Support domains (Table 3). Of note, teachers in Component D generally scored high in the pre-observation of the Emotional Support domain, so this may explain why observed improvement did not reach statistical significance: at pre-observation, 70% met a score of 5 or higher (recommended by *Teachstone*[®] as a reasonable level of quality), followed by 77% meeting 5 or higher at post-observation (Table 4).

One instance of significant decline in scores was found: for Component B participants in FY 2011-12, Instructional Support declined. This decline may possibly reflect the broad content of coursework offered for this group as well as logistical difficulties experienced in making videos for *CLASS* coding during the first year of data collection.

CONCLUSION

To conclude, evaluation of CARES Plus, Round 1, shows the program has been useful for improving the skills of program participants from California's early care and education workforce. Participants found the training to be useful and rated the program highly. With regard to observational assessments with the *CLASS* instrument, Component D, because of its intensive one-on-one coaching model, may hold the most promise for directly improving the quality of interaction between teachers and young children. Components A

and B also provide useful training, though they may not improve quality of interaction in the domain of Instructional Support.

With regard to quality of interaction assessed by *CLASS*, future analyses of data currently being collected for CARES Plus, Round 2, may provide additional information about the relationship between *CLASS* score improvement and teachers' level of educational attainment, prior ECE/CD education, and specific coursework provided in CARES Plus.

REFERENCES CITED

Burchinal, Margaret, Nathan Vandergrift, Robert Pianta, and Andrew Mashburn. 2010. "Threshold Analysis of Association Between Child Care Quality and Child Outcomes for Low-income Children in Pre-kindergarten Programs." *Early Childhood Research Quarterly* 25: 166-176.

California Department of Education. 2014. *California Race to the Top-Early Learning Challenge (RTT-ELC): Tiered Quality Rating and Improvement System (TQRIS) Consortia Implementation Guide.* (Draft Working Document). Sacramento, California. http://www.cde.ca.gov/sp/cd/rt/rttelcapproach.asp

Cohen, Jacob. 1988. *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Hillsdale, N.J: Lawrence Erlbaum Associates.

Cohen, Jacob. 1992. "A power primer." *Psychological Bulletin* 112(1): 155–159.

Ellis, Paul D. 2010. *The Essential Guide to Effect Sizes: Statistical Power, Meta-Analysis, and the Interpretation of Results.* Cambridge: Cambridge University Press.

First 5 California. 2010. *Request for Application to the CARES Plus Program.* Sacramento, California.

First 5 California. 2013. *CARES Plus Participant Survey Results, FY 2012-13.* Presented at the Children and Families Commission Meeting October 24, 2013. Sacramento, California. www.ccfc.ca.gov/pdf/research/program_reports/CARESPlusSurveyFY2012-13.pdf

Grissom, Robert J., and John J. Kim. 2005. *Effect Sizes for Research: A Broad Practical Approach.* Mahwah, New Jersey: Lawrence Erlbaum Associates.

Hamre, Bridget K., Stacie G. Goffin, Marcia Kraft-Sayre. 2009. *Classroom Assessment Scoring System (CLASS) Implementation Guide: Measuring and Improving Classroom Interactions in Early Childhood Settings.* Charlottesville, Virginia: Teachstone. https://www.teachstone.org/wp-content/uploads/2010/06/CLASSImplementationGuide.pdf

Hill, Carolyn J., Howard S. Bloom, Alison Rebeck Black, and Mark W. Lipsey. 2007. "Empirical Benchmarks for Interpreting Effect Sizes in Research." *MDRC Working Papers of Research Methodology.* New York: MDRC.

Mashburn, Andrew J., Robert C. Pianta, Oscar A. Barbarin, Donna Bryant, Bridget K Hamre, Jason T Dower, Margaret Burchinal, and Diane M. Early. 2008. "Measures of Classroom Quality in Prekindergarten and Child's Development of Academic, Language, and Social Skills." *Child Development* 79(3): 732-749.

McNemar, Quinn. 1947. "Note on the sampling error of the difference between correlated proportions or percentages." *Psychometrika* 12(2): 153–157.

Morris, Scott B., and Richard P. DeShon. 2002. "Combining Effect Size Estimates in Meta-Analysis With Repeated Measures and Independent-Groups Designs." *Psychological Methods* 7:(1) 105-125.

Pianta, R.C., K. La Paro, and B.K. Hamre. 2008. *Classroom Assessment Scoring System.* Baltimore: Paul H. Brooks.

Sabol, T. J., S.L. Soliday Hong, R. C. Pianta, and M. R. Burchinal. 2013. "Can Rating Pre-K Programs Predict Children's Learning?" *Science* 341: 845-846.

Slavin, Robert E. and Dewi Smith. 2008. "Effects of Sample size on Effect Size in Systematic Reviews in Education." In *Best Evidence Encyclopedia.* Johns Hopkins University, School of Education.

ATTACHMENTS

Data Tables:

Table 1 - Enrolled Participant Demographics
Table 2 - Number of Enrolled Participants by Lead Agency
Table 3 - Shifts in Mean Scores by Program Component and *CLASS* Domain
Table 4 - Shifts in Percent of Participants Meeting TQRIS Standards by Program Component and *CLASS Domain*

PowerPoint Presentation

Table 1 - Enrolled Participant Demographics: Gender, Race/Ethnicity, and Education Level

FYs 2011-12 and 2012-13

Category	Number Enrolled			
	2011-12	**2012-13**	**Total**	**Percent**
Total number of participants who **enrolled** by program	4,774	6,136	10,910	100.0
Total number of participants who **completed** by program	3,790	4,427	8,217	75.3
Total number of participants who **withdrew** by program	984	1,709	2,693	24.7
Percent withdrew from program	20.6%	27.9%	24.7%	

Gender	Number Enrolled			
	2011-12	**2012-13**	**Total**	**Percent**
Female	4,298	5,456	9,754	89.4%
Male	70	100	170	1.6%
Decline to State	16	32	48	0.4%
Blank	390	548	938	8.6%
Total	**4,774**	**6,136**	**10,910**	**100.0%**

Race/Ethnicity	Number Enrolled			
	2011-12	**2012-13**	**Total**	**Percent**
Alaska Native or American Indian	79	81	160	1.5%
Asian	416	572	988	9.1%
Black or African American	349	501	850	7.8%
Hispanic or Latino	1,810	2,506	4,316	39.6%
Pacific Islander	24	35	59	0.5%
White	1,245	1,422	2,667	24.4%
Blank	476	592	1,068	9.8%
Other	294	341	635	5.8%
Decline to State	81	86	167	1.5%
Total	**4,774**	**6,136**	**10,910**	**100.0%**

Education Level	Number Enrolled			
	2011-12	**2012-13**	**Total**	**Percent**
Graduate Degree	168	251	419	3.8%
Bachelor's Degree	905	1,478	2,383	21.8%
Associate Degree	1,664	1,403	3,067	28.1%
Some College	1,299	2,028	3,327	30.5%
High School Diploma or GED	448	664	1,112	10.2%
Less than High School	132	268	400	3.7%
Blank	158	44	202	1.9%
Total	**4,774**	**6,136**	**10,910**	**100.0%**

Table 2 - Number of Enrolled Participants by Lead Agency
FYs 2011-12 and 2012-13

Lead Agency or County	Number Enrolled			
	2011-12	2012-13	Total	Percent
Alameda	197	201	398	3.6
Amador	28	na	28	0.3
Colusa	4	12	16	0.1
Contra Costa	181	202	383	3.5
Del Norte	45	34	79	0.7
El Dorado	74	106	180	1.6
Fresno	171	247	418	3.8
Humboldt	109	69	178	1.6
Lake	35	56	91	0.8
Los Angeles	733	1,165	1,898	17.4
Madera	7	7	14	0.1
Marin	91	74	165	1.5
Mendocino	60	72	132	1.2
Merced	108	138	246	2.3
Modoc	26	35	61	0.6
Mono	28	36	64	0.6
Napa	59	66	125	1.1
Orange	223	265	488	4.5
Riverside	255	447	702	6.4
Sacramento	119	135	254	2.3
San Benito	37	34	71	0.7
San Bernardino	306	493	799	7.3
San Francisco	34	97	131	1.2
Santa Barbara	232	192	424	3.9
Santa Clara	879	1,131	2,010	18.4
Shasta	82	93	175	1.6
Siskiyou	20	26	46	0.4
Solano	145	147	292	2.7
Sonoma	113	131	244	2.2
Stanislaus	72	132	204	1.9
Tehama	35	34	69	0.6
Ventura	153	176	329	3.0
Yolo	113	83	196	1.8
Total	**4,774**	**6,136**	**10,910**	**100.0**

Table 3 - Shifts in Mean Scores by Program Component and CLASS Domain
FYs 2011-12 and 2012-13

FY 2011-12

Group [1]	CLASS Domain	Pre	Post	Diff.	t-test p value	Effect size [2]
A 36	ES	5.6	5.5	-0.1	n.s.	-0.14
	CO	5.2	5.1	-0.1	n.s.	-0.10
	IS	2.4	2.3	-0.1	n.s.	-0.10
B 95	ES	5.7	5.6	-0.1	n.s.	-0.13
	CO	5.3	5.3	0	n.s.	0.00
	IS	2.7	2.2	-0.5	0.001	-0.42
D 131	ES	5.4	5.4	0	n.s.	0.00
	CO	5	5.1	0.1	0.0317	0.09
	IS	2.4	2.5	0.1	0.0146	0.09

FY 2012-13

Group [1]	CLASS Domain	Pre	Post	Diff.	t-test p value	Effect size [2]
A 52	ES	5.4	5.7	0.3	0.03	0.38
	CO	4.9	5.3	0.4	0.01	0.44
	IS	2.3	2.5	0.2	n.s.	0.20
B 116	ES	5.4	5.6	0.2	0.057	0.29
	CO	5	5.3	0.3	0.006	0.33
	IS	2.3	2.3	0.1	n.s.	0.00
D 184	ES	5.4	5.5	0.1	n.s.	0.13
	CO	5	5.2	0.2	0.032	0.20
	IS	2.2	2.4	0.2	0.015	0.22

Combined FY 2011-12 and 2012-13

Group [1]	CLASS Domain	Pre	Post	Diff.	t-test p value	Effect size [2]
A 88	ES	5.5	5.6	0.1	n.s.	0.13
	CO	5	5.2	0.2	n.s.	0.20
	IS	2.3	2.4	0.1	n.s.	0.10
B 211	ES	5.5	5.6	0.01	n.s.	0.13
	CO	5.1	5.3	0.2	0.023	0.22
	IS	2.5	2.3	-0.2	n.s.	-0.18
D 315	ES	5.4	5.5	0.1	n.s.	0.11
	CO	5	5.2	0.2	0.011	0.20
	IS	2.3	2.5	0.2	0.013	0.20

[1] Group A: Participants in CORE + A, CORE + A + B, A, A/C .
 Group B: Participants in CORE + B, B, Los Angeles CORE+3 categorized as CORE + B.
 Group D: Participants in CORE + A + C + D, CORE + A + D, CORE + B + D, CORE + C + D, CORE + D, A/D, B/D, C/D, D.

[2] Effect Size: $(Post-Pre)/SD_{pre}$.

Table 4 - Shifts in the Percent of Participants Meeting TQRIS Standards by Program Component and CLASS Domain
FYs 2011-12 and 2012-13 [1]

FY 2011-12						FY 2012-13						Combined FY 2011-12 and FY 2012-13					
Group [2]	Domain	Pre	Post	Diff	McNemar's Test [3] p<.05	Group [2]	Domain	Pre	Post	Diff	McNemar's Test [3] p<.05	Group [2]	Domain	Pre	Post	Diff	McNemar's Test [3] p<.05
A	ES	31	27	-4	n.s.	A	ES	39	46	7	0.071	A	ES	70	73	3	n.s.
36		86.1%	75.0%	-11.1%		52		75.0%	88.5%	13.5%		88		79.5%	83.0%	3.4%	
	CO	26	22	-4	n.s.		CO	28	40	12	0.019		CO	54	62	8	n.s.
		72.2%	61.1%	-11.1%				53.8%	76.9%	23.1%				61.4%	70.5%	9.1%	
	IS	7	6	0	n.s.		IS	13	15	2	n.s.		IS	20	21	2	n.s.
		19.4%	16.7%	0.0%				25.0%	25.0%	25.0%				22.7%	23.9%	2.3%	
B	ES	76	79	3	n.s.	B	ES	84	97	13	0.033	B	ES	160	176	16	0.039
95		80.0%	83.2%	3.2%		116		72.4%	83.6%	7.2%		211		75.8%	83.4%	7.6%	
	CO	65	67	2	n.s.		CO	66	82	16	0.01		CO	131	149	18	0.031
		68.4%	70.5%	2.1%				56.9%	70.7%	13.8%				62.1%	70.6%	8.5%	
	IS	35	19	-16	0.006		IS	25	24	-1	n.s.		IS	60	43	-17	0.044
		36.8%	20.0%	-16.8%				21.6%	20.7%	-0.9%				28.4%	20.4%	-8.1%	
D	ES	89	99	10	n.s.	D	ES	128	141	13	n.s.	D	ES	217	240	23	0.023
131		67.9%	75.6%	7.6%		184		69.6%	76.6%	7.1%		315		68.9%	76.2%	7.3%	
	CO	77	83	6	n.s.		CO	115	117	2	n.s.		CO	192	200	8	n.s.
		58.8%	63.4%	4.6%				62.5%	63.6%	1.1%				61.0%	63.5%	2.5%	
	IS	34	36	2	n.s.		IS	37	56	19	0.01		IS	71	92	21	0.042
		26.0%	27.5%	1.5%				20.1%	30.4%	10.3%				22.5%	29.2%	6.7%	

[1] TQRIS Standards for Race to the Top/Early Learning Challenge: ES (5), CO (5), and IS (3).
[1] Group A: Participants in CORE + A, CORE + A + B, A, A/C .
 Group B: Participants in CORE + B, B, Los Angeles CORE+3 categorized as CORE + B.
 Group D: Participants in CORE + A + C + D, CORE + A + D, CORE + B + D, CORE + C + D, CORE + D, A/D, B/D, C/D, D.
[3] McNemar's Test (McNemar, 1947).

CARES Plus, Round 1: Evaluation Findings Update Including Analyses of *CLASS™* Assessment Data

Children and Families Commission Meeting
April 24, 2014

FIRST 5 CALIFORNIA

CARES Plus, Round 1, Evaluation Findings Update
Outline

- Summary of Findings
- Background
- Evaluation and Data Collection
- Program Participant Findings
- *CLASS* Observational Assessment Findings
- Conclusion
- Acknowledgments

FIRST 5 CALIFORNIA

Summary of Findings
Comprehensive Approaches to Raising Educational Standards (CARES) Plus

Round 1 (FYs 2010-11 – 2012-13):

- The program was useful for improving the quality of teacher-child interaction for program participants.
- Participants found the training to be useful and rated the program highly.
- Components A and B supported improvements in the *CLASS* domains of Emotional Support and Classroom Organization but not improvement in Instructional Support.
- Component D, (*My Teaching Partner*^{TM}), supported improvement in the quality of interaction between teachers and children in the *CLASS* domains of Classroom Organization and Instructional Support.

Background

CARES Plus Logic Model

Comprehensive Approaches to Raising Educational Standards (CARES) Plus
Promoting high quality interaction between teachers and children in pre-school*

CONCEPTUAL FRAMEWORK
LOGIC MODEL 2/7/2013

PROGRAM FOCUS

CARES Plus addresses the need for access to high quality professional development of the Early Education workforce.

CARES Plus focuses on these *contributing factors*:

- Limited resources for optimal teacher effectiveness
- Limited resources for teacher training and educational attainment
- High teacher turnover

PROGRAM MODEL

A teacher support and evaluation system:
o Professional development plan (CORE)
o Research based training (Component A)
o Higher education (Component B)
o Advising opportunities (Component C)
o MyTeachingPartner™ coaching pilot (Component D)
- Classroom observation for selected participants
- Assessment of the quality of teacher/child interactions (emotional support, classroom organization, instructional support)
- Stipends for program completion

SHORT –TERM OBJECTIVES

- Increase teacher effectiveness by improving quality of interaction with children

- Help teachers to develop professionally:
o Coursework in ECE
o Degree/permit attainment
o Promotion

- Retain qualified teachers in the Early Childhood Education field

ULTIMATE GOALS

- Stable Early Childhood Education workforce
- Stable, caring, and interactive relationships between children and teachers
- Improved child outcomes

GUIDING PRINCIPLES

1. Interventions based on research and scientific theory (developmental psychology, neuropsychology).
2. Curriculum meeting standards of California Department of Education: *California Infant/Toddler and Preschool Learning Foundations* and *California Preschool Curriculum Framework*
3. *First 5 Principles on Equity:* Inclusive governance and participation, access to services, legislative and regulatory mandates, results-based accountability.
4. Cost-effective quality improvement of preschool learning environments.
* Teacher effectiveness is one of the most important factors for quality of early learning programs. "The relationship a child has with a teacher or caregiver…is the central most critical component of child care quality" (US Department of Education).

FIRST 5 CALIFORNIA

What is the CARES Plus Program?
Requirements: CORE and One Component or More

CORE (New participants)	• *Introduction to the CLASS™* • *Looking at CLASSrooms™* • CARES Plus Tobacco Training: *Kids and Smoke Don't Mix*
Annually (All participants)	• Annual meeting with a CARES Plus Advisor, completion of a Professional Growth Plan, approved component requirements (elective, identified below), and completion of an annual participant survey

Component A	• Minimum of 21 hours of California Department of Education-approved professional growth training • *CLASS* observation (if randomly selected)
Component B	• Minimum of six units of higher education towards a degree in Early Childhood Education/Child Development (ECE/CD) or related field • *CLASS* observation (if randomly selected)
Component C	• Serve as CARES Plus Advisor
Component D	• *My Teaching Partner™ (MTP™)* one-on-one professional growth coaching • Required to participate in *CLASS* observation

6

FIRST 5 CALIFORNIA

Evaluation and Data Collection

FIRST 5 CALIFORNIA

CARES Plus Program Evaluation: Three Views of the Program

- Participant View: Online Survey
  - Purpose: Quantitative and qualitative assessment of satisfaction, successes, and challenges of the program from participants' point of view.
  - Presented at Commission meeting October 23, 2013.
- Research-Based Assessment View: Observations with Classroom Assessment Scoring System (*CLASS™*)
  - Purpose: Structured observation to assess quality of teacher-child interaction (validated instrument).
  - Presented at Commission meeting April 24, 2014.
- Lead Agency View: Quality Performance Report (QPR)
  - Purpose: Qualitative assessment of program successes and challenges from the Lead Agency point of view
  - To be presented at a future Commission meeting.

FIRST 5 CALIFORNIA

Program Participant Findings

- Diverse cross-section served
  - Gender: Female 89% or more
  - Race/Ethnicity: 40% Hispanic or Latina, 24% White, 9% Asian, 8% African American Educational Attainment: Range from less than a high school diploma to doctorate; 73% of participants obtained less than a BA degree
  - 33 lead agencies (counties) participated
- 25 percent dropout rate by participants after initial enrollment
  - Most dropouts occurred soon after initial enrollment during the approval process by Lead Agencies. Participant reasons for program withdrawal included: schedule conflicts, family concerns, or lack of access to internet or community colleges.
- Program participants reported high satisfaction with program
  - CARES Plus Survey: 80% responded that the program was very useful for their professional development, would enable them to stay in the early childhood education field, and would have a positive impact on the children in their care.
  - Key helpful features included: Online training, financial stipend, and access to an advisor who could help with a professional development plan.
  - Improvement suggestions included: Training of advisors, access to advisors and online training, and better communication between Lead Agencies and participants.

CARES Plus, Round 1, Combined FYs 2011-12 and 2012-13

Race/Ethnicity

Hispanic or Latino	40%
White	24%
Asian	9%
Black or African American	8%
Alaskan Native or American Indian	2%
Native Hawaiian or Pacific Islander	1%
Blank	10%
Other	6%
Decline to state	2%

Gender

Female	89%
Male	2%
Blank	9%

Enrolled Participants n=10,910

FIRST 5 CALIFORNIA
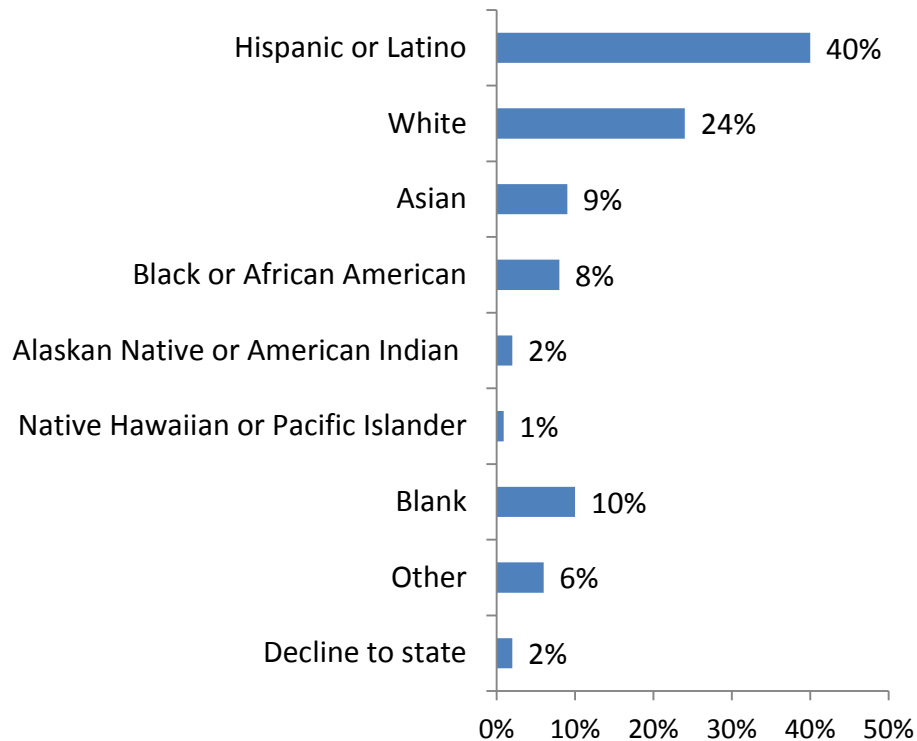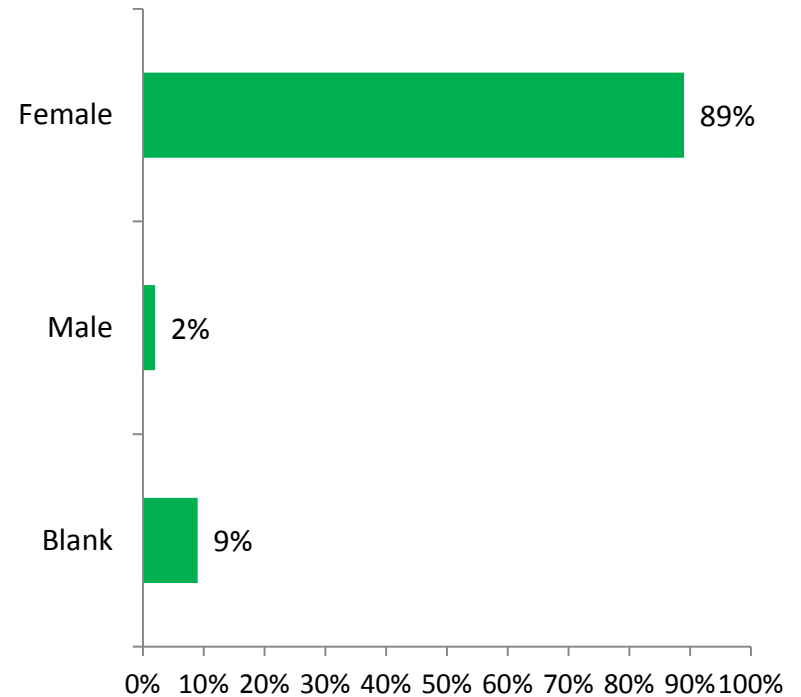
CARES Plus, Round 1, Combined FYs 2011-12 and 2012-13

Level of Education
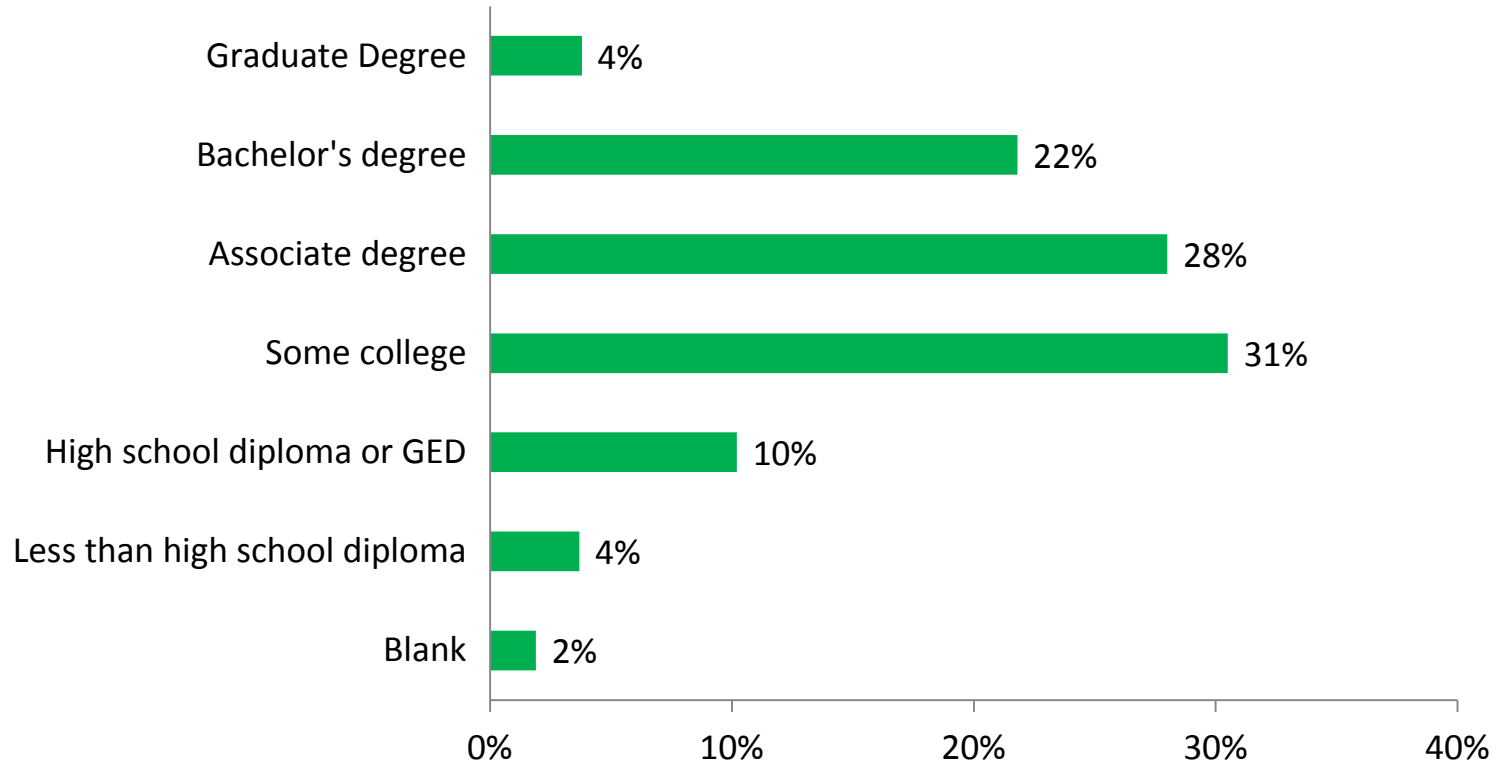
Level of Education	Percentage
Graduate Degree	4%
Bachelor's degree	22%
Associate degree	28%
Some college	31%
High school diploma or GED	10%
Less than high school diploma	4%
Blank	2%

Enrolled Participants n=10,910

FIRST 5 CALIFORNIA

CARES Plus, Round 1
Combined FYs 2011-12 and 2012-13
Percent of Enrolled Participants by Lead Agency

Enrolled Participants n= 10,910

April 2014

12

CLASS Observational Assessment Findings

FIRST 5 CALIFORNIA
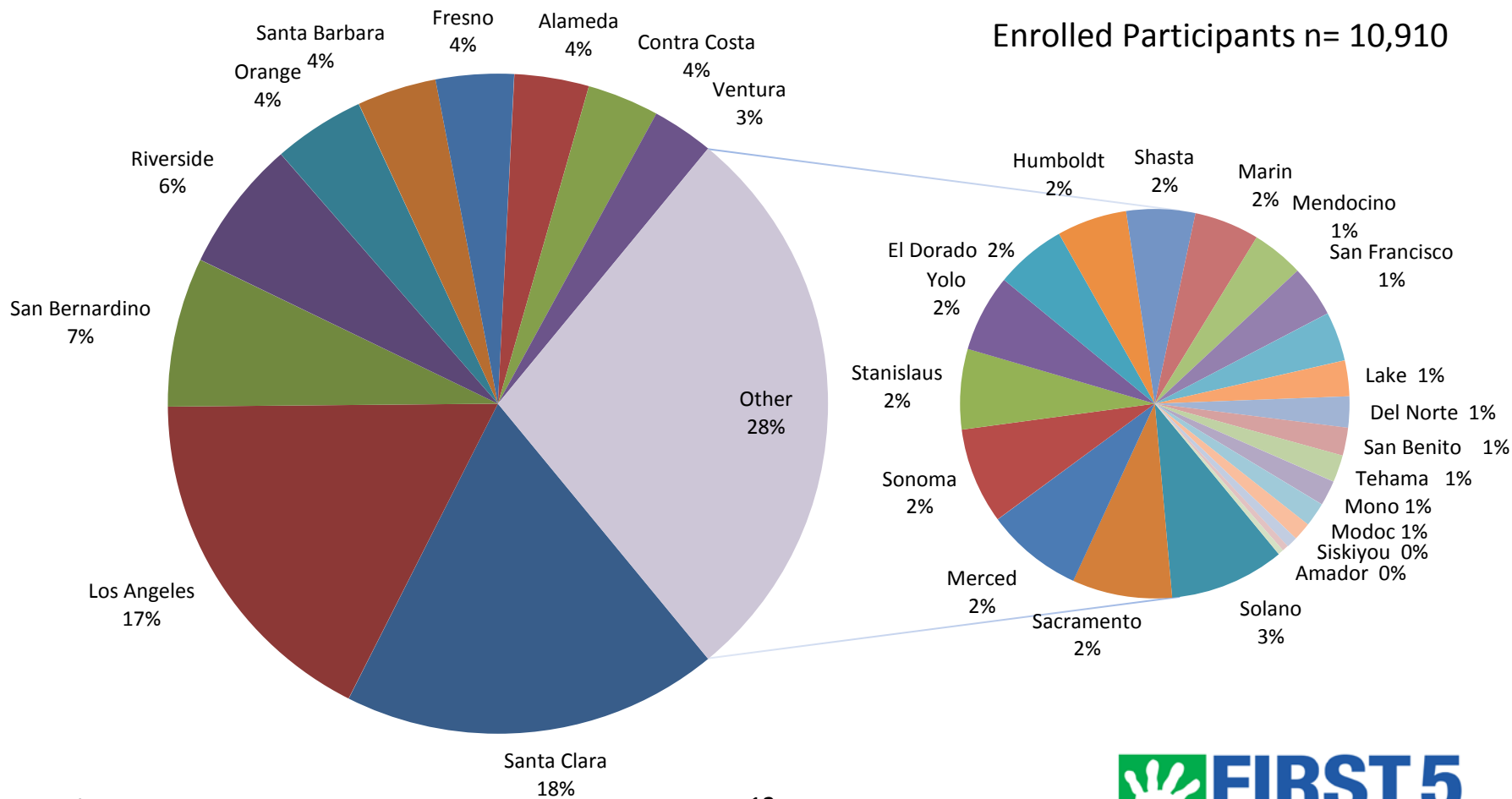
CLASS Observation Methods

- The Pre-K *CLASS* instrument was used to assess quality of interaction (Pianta, et al. 2008).
- *CLASS* Pre-K was used to code video observations in a pre-post design (fall, spring) for each of two years (FYs 2011-12 and 2012-13).
- Participants in three program components were assessed:
  - Component A: 21 hours of CDE-approved professional growth training. Statewide random sample.
  - Component B: Minimum of 6 units of higher education toward ECE, CD, or related field. Statewide random sample.
  - Component D (*My Teaching Partner ™*): One-on-one professional growth coaching. One hundred percent sample for the component.
- The Pre-K *CLASS* instrument addresses three domains summarizing 10 dimensions of teacher-child interaction:
  - Emotional Support
  - Classroom Organization
  - Instructional Support

FIRST 5 CALIFORNIA

Classroom Assessment Scoring System (CLASS)

Domains and Dimensions
for Observational Assessment of Quality of Interaction

Emotional Support	Classroom Organization	Instructional Support
• Positive Climate • Negative Climate • Teacher Sensitivity • Regard for Student Perspectives	• Behavior Management • Productivity • Instructional Learning Formats	• Concept Development • Quality of Feedback • Language Modeling

FIRST 5 CALIFORNIA
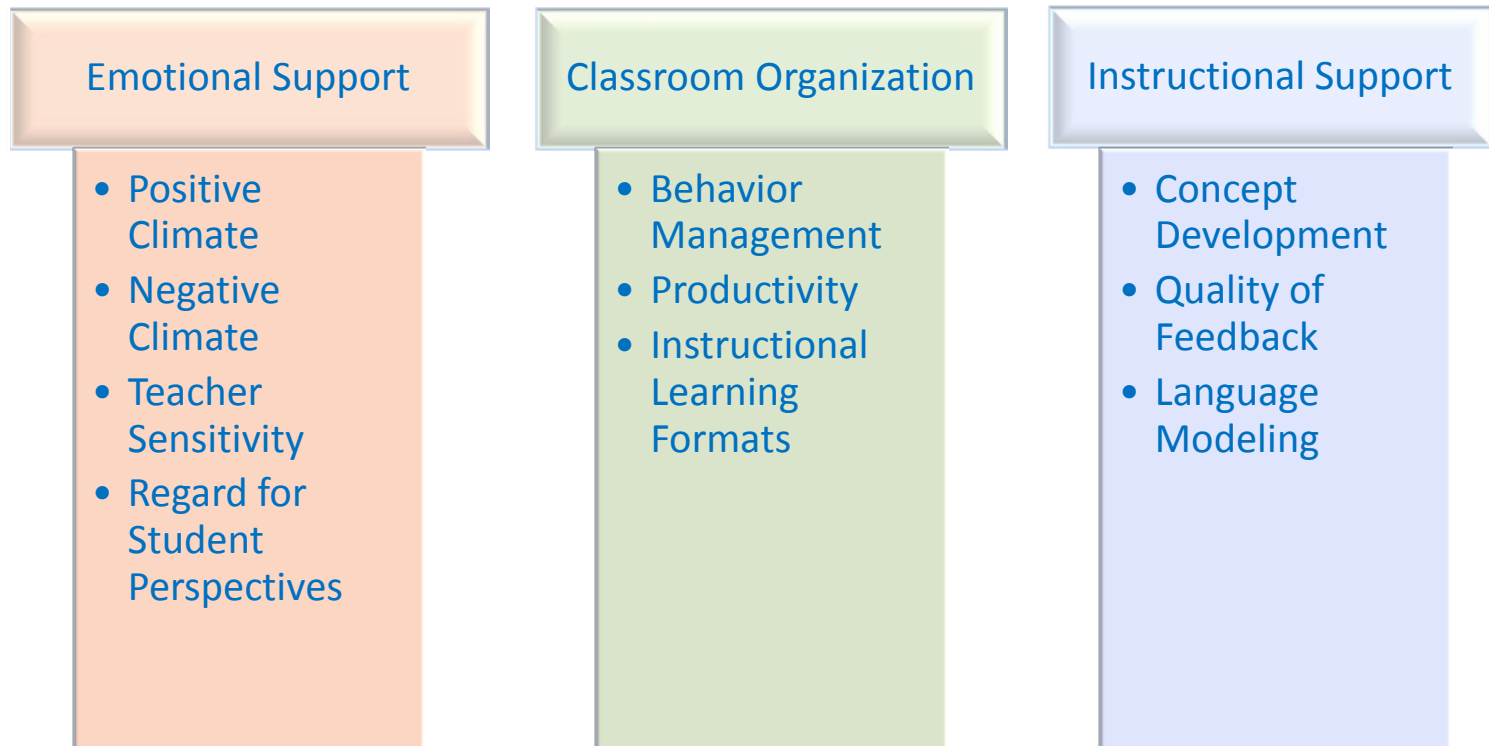
CLASS Observational Assessment Findings

- – Let's review for each Program Component, A, B, and D findings for the second year of data (FY 2012-13):
    - Shifts in mean scores by *CLASS* domain
    - Percent of participants by *CLASS* domain at or above Tiered Quality Rating Information Systems (TQRIS) thresholds adopted for California's Race to the Top/Early Learning Challenge.
    - Effect sizes for shifts in CLASS domain scores
- – The first year of data collection (FY 2011-12) involved program implementation challenges and contracting issues, using the PRO0F data system, and collecting coded *CLASS* observations by video
- – The second year of data collection (FY 2012-13) was more stable with:
    - More timely enrollment
    - Larger sample sizes for *CLASS* observations
    - Better defined time window between pre- and post-observations (3 to 6 months)

16

CARES Plus, Round 1
FY 2012-13

Mean Scores by *CLASS* Domain and Program Component
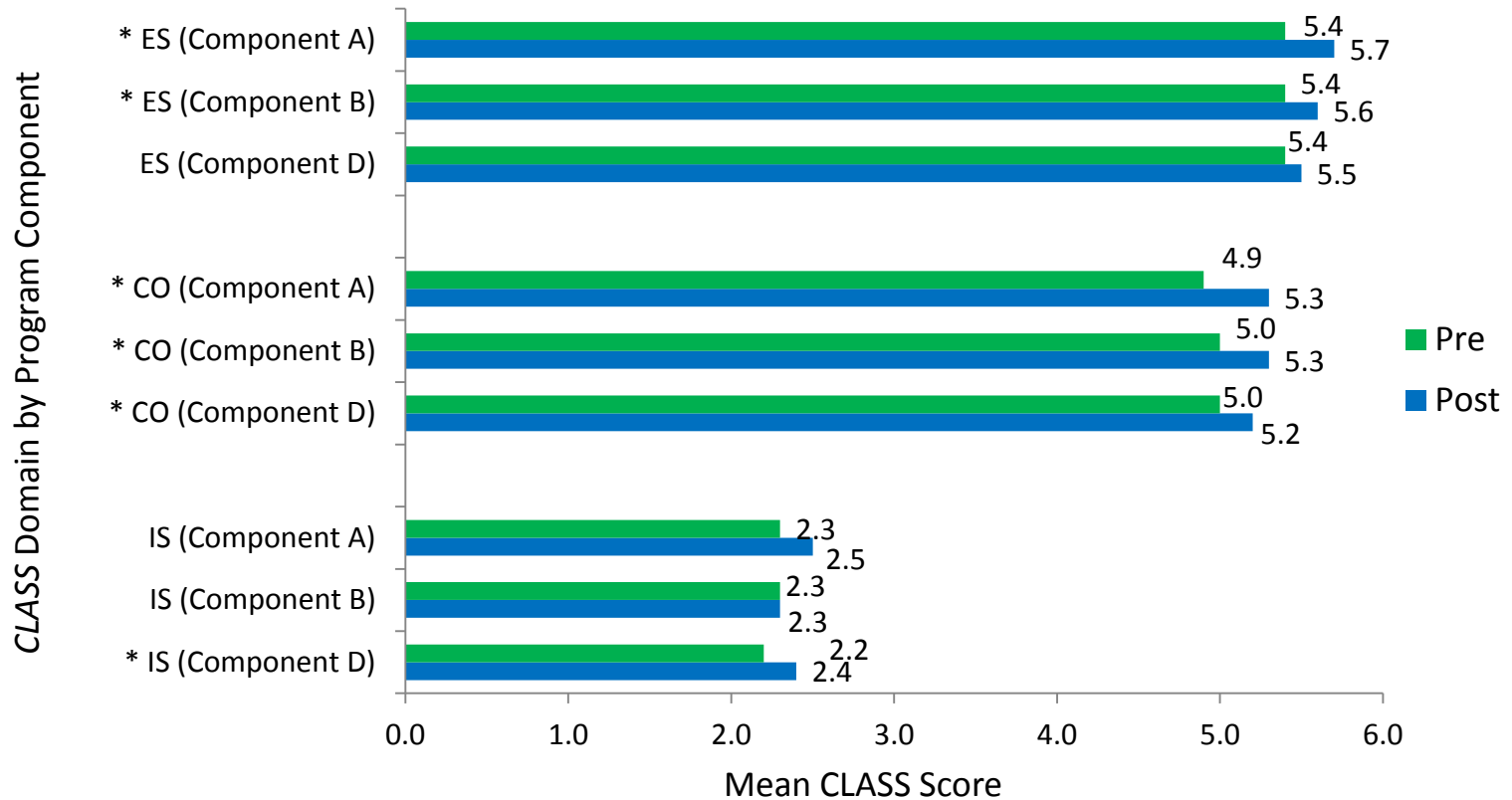
Domain Codes: ES = Emotional Support   CO = Classroom Organization IS = Instructional Support

*Significant at p<.05 (t-test)

17

FIRST 5 CALIFORNIA

CARES Plus, Round 1, FY 2012-13
Percent of Participants At or Above TQRIS Thresholds[1] by *CLASS* Domain and Program Component

CLASS Domain by Program Component (y-axis)

Percent of Participants At or Above TQRIS Threshold (x-axis)

Component	Pre	Post
ES (Component A)	75%	89%
* ES (Component B)	72%	84%
ES (Component D)	70%	77%
* CO (Component A)	54%	77%
* CO (Component B)	57%	71%
CO (Component D)	63%	64%
IS (Component A)	25%	25%
IS (Component B)	22%	21%
* IS (Component D)	20%	30%

Legend: Pre (green), Post (blue)

Domain Codes: ES = Emotional Support   CO = Classroom Organization IS = Instructional Support

[1] TQRIS Thresholds: ES (5) CO (5) IS (3)   * Significant at p<.05 (McNemar's Test)

FIRST 5 CALIFORNIA
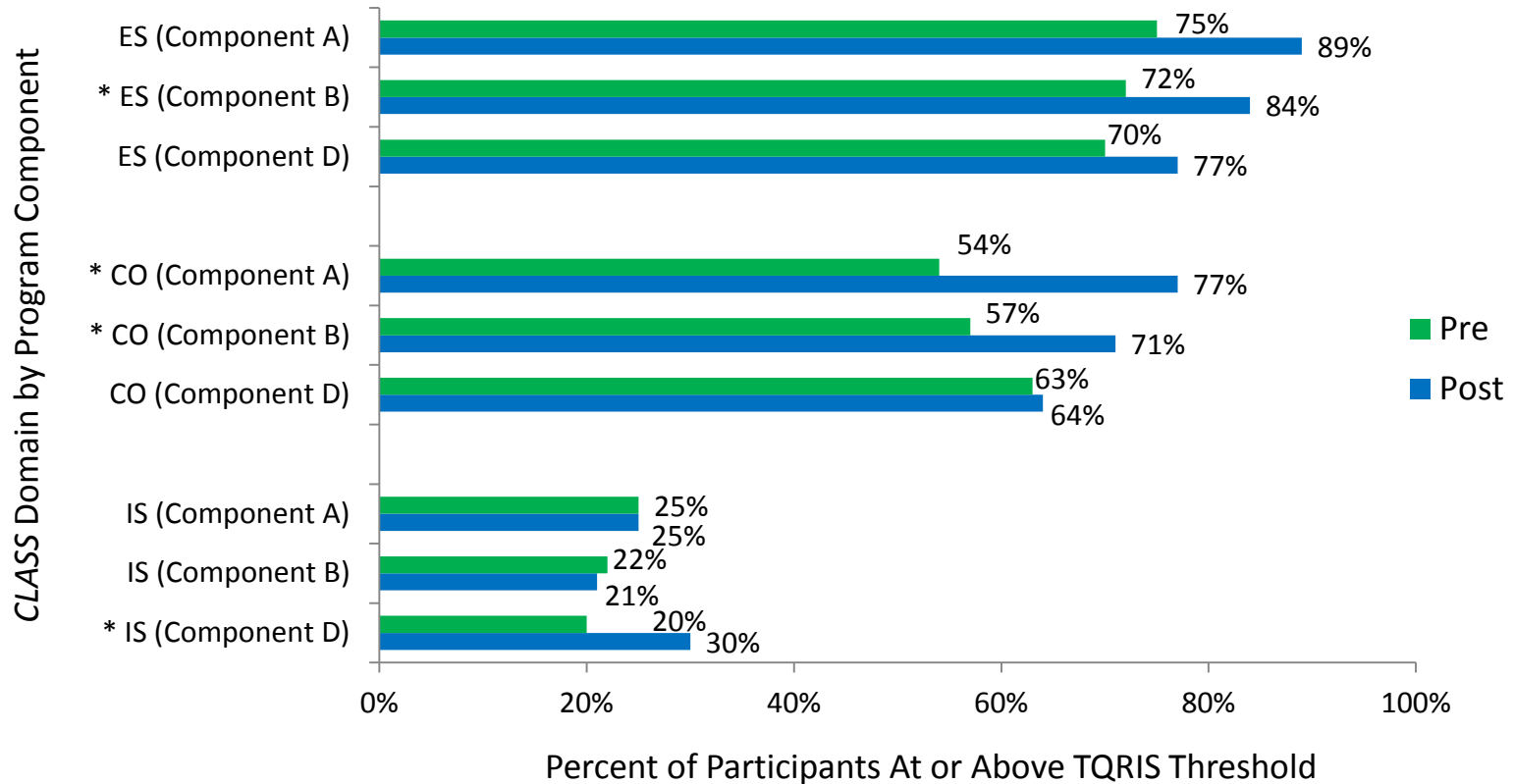
What is an Effect Size?

- "An effect size refers to the magnitude of the result as it occurs, or would be found, in the population" (Paul Ellis, 2010, *The Essential Guide to Effect Sizes*, Cambridge University Press, p. 4).
- Effect size helps to assess the meaningfulness of changes observed in a study sample beyond null hypothesis significance tests.
- Common families of measures for effect sizes:
  - Difference *d* (example, standardized mean difference, Cohen's d)
  - Correlation *r* (example, Pearson's r)
- How to interpret? For a standardized difference in means, Cohen (1988) suggests:
  - 0.20 small effect
  - 0.50 medium effect
  - 0.80 large effect
- What are typical effect sizes for education interventions?
  - Typically 0.20 to 0.40 (Hill et al. 2007, Slavin and Smith 2008)

FIRST 5
CALIFORNIA

CARES Plus, Round 1, FY 2012-13
Effect Size by Program Component and CLASS Domain

CARES Plus Program Component	CLASS Domain	Effect Size*	Significant Change? **
A: 21 Hours CDE-Approved Training	Emotional Support	0.38	Yes
	Classroom Organization	0.44	Yes
	Instructional Support	0.20	No
B: 6 Units Higher Education Toward ECE/CD	Emotional Support	0.29	Yes
	Classroom Organization	0.33	Yes
	Instructional Support	0	No
D: *My Teaching Partner* One-on-One Coaching	Emotional Support	0.13	No
	Classroom Organization	0.20	Yes
	Instructional Support	0.22	Yes

*Effect Size = (Post-Pre) / SD Pre   **Significant at $p<.05$ (t-test)

FIRST 5 CALIFORNIA

CARES Plus, Round 1, FY 2012-13
Effect Size by *CLASS* Domain and Program Component

Domain Codes: ES = Emotional Support   CO = Classroom Organization IS = Instructional Support

* Significant at p<.05 (t-test)

FIRST 5 CALIFORNIA
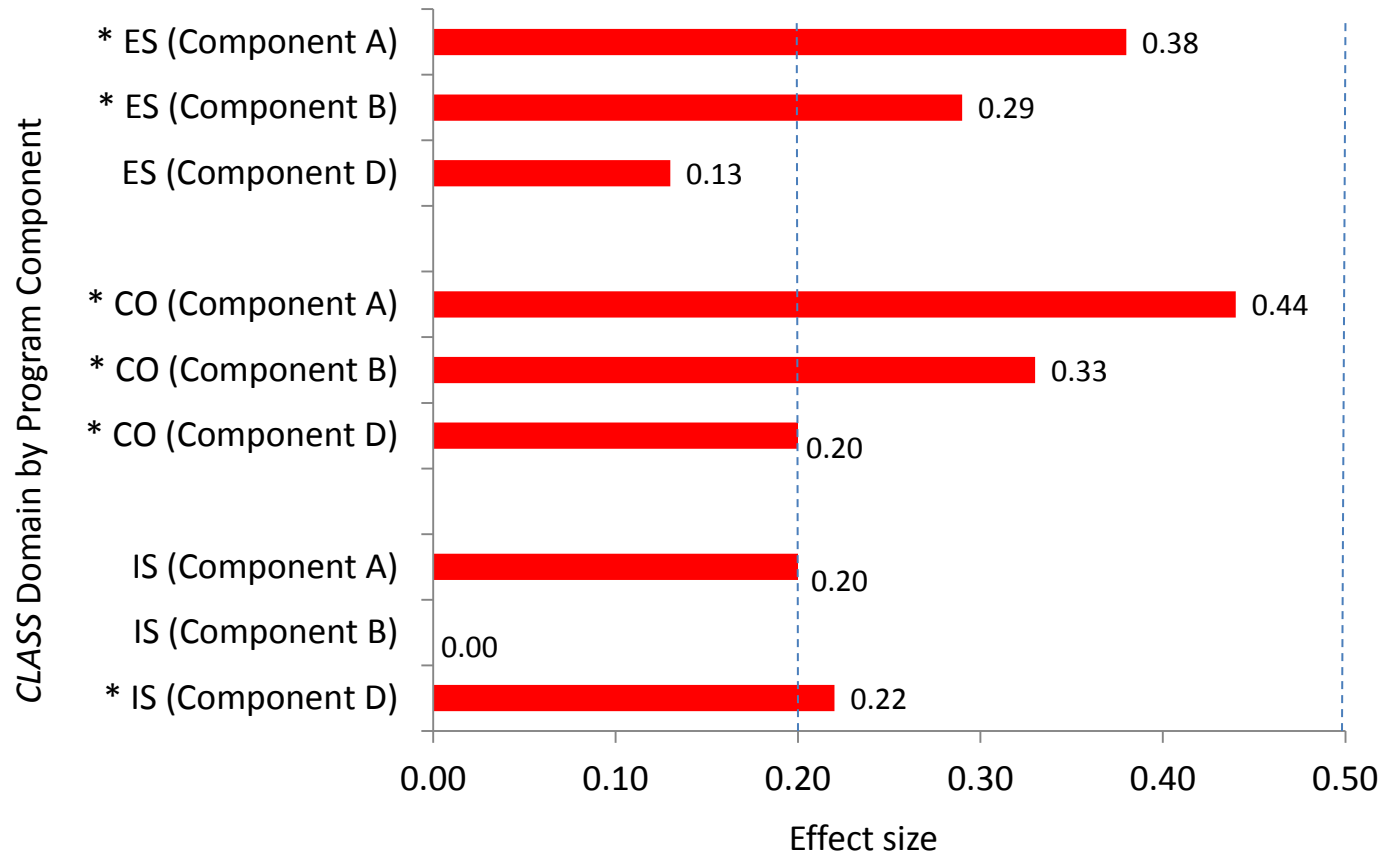
Conclusion

Summary

- During CARES Plus, Round 1:
    - The program was useful for improving the quality of teacher-child interaction for program participants.
    - Participants found the training to be useful and rated the program highly.
    - Components A and B supported improvements in the *CLASS* domains of Emotional Support and Classroom Organization but not improvement in Instructional Support.
    - Component D resulted in a greater improvement in quality of interaction between teachers and children in the *CLASS* domains of Classroom Organization and Instructional Support.

Looking to the Future

- Future analyses in CARES Plus might address relationships between *CLASS* score improvement and:
    - Teacher's level of educational attainment
    - Prior Early Childhood/Child Development education
    - Specific coursework provided in CARES Plus
- These possible analyses will depend on data aggregated across multiple program year to achieve sufficient sample size.

FIRST 5 CALIFORNIA

Acknowledgments

Evaluation Division
Nicole Dansby
Robert Dean
Lance Vayder
David Dodds, General Supervision

Program Division
Lupe Almer
Lori Gladding
Paula Gonzales
Mary Anne Riehl-Campos
Debra Silverman, General Supervision
Diane Levin, General Supervision

Child Development Teaching Consortium (CDTC)
María Guzman
Patty Scroggins

Infiniti Consulting Group
Margaret O'Neil

Information Technology Office
Riley Henderson
Paul Waters, General Supervision

Review
Jaime Hastings
Camille Maben

FIRST 5 CALIFORNIA

Appendix:
CLASS Data Analyses,
Combined FYs 2011-12 and 2012-13

FIRST 5 CALIFORNIA

CARES Plus, Round 1
Combined FYs 2011-12 and 2012-13

Mean Scores by *CLASS* Domain and Program Component
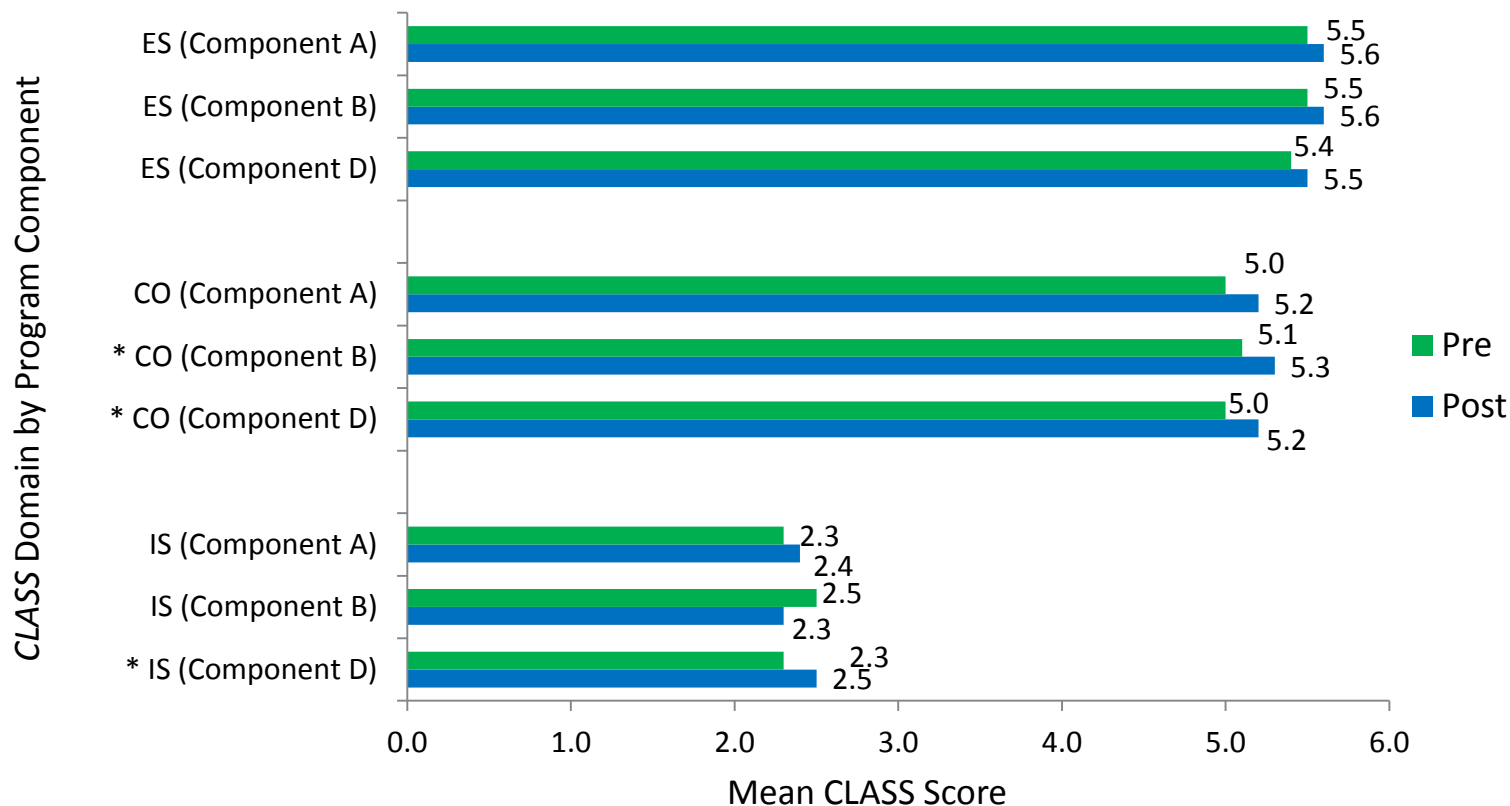
ES = Emotional Support   CO = Classroom Organization IS = Instructional Support

*Significant at p<.05 (t-test)

FIRST 5 CALIFORNIA

CARES Plus, Round 1
Combined FYs 2011-12 and 2012-13
Percent of Participants At or Above TQRIS Thresholds[1]
by *CLASS* Domain and Program Component

Domain Codes: ES = Emotional Support   CO = Classroom Organization IS = Instructional Support

[1] TQRIS Thresholds: ES (5) CO (5) IS (3)   * Significant at p<.05 (McNemar's Test)

FIRST 5 CALIFORNIA
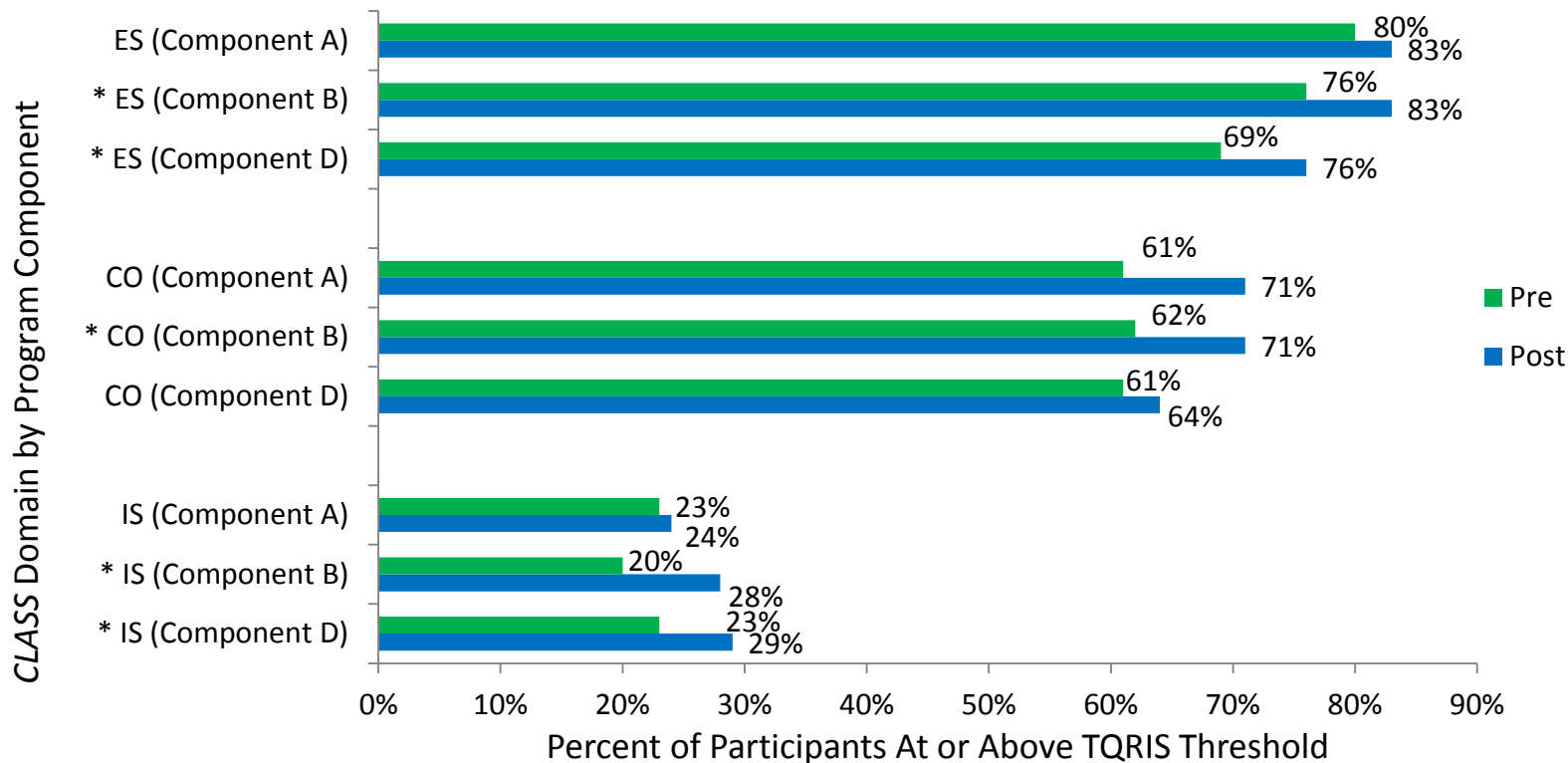
CARES Plus, Round 1
Combined FY 2011-12 and 2012-13

Effect Size by *CLASS* Domain and Program Component
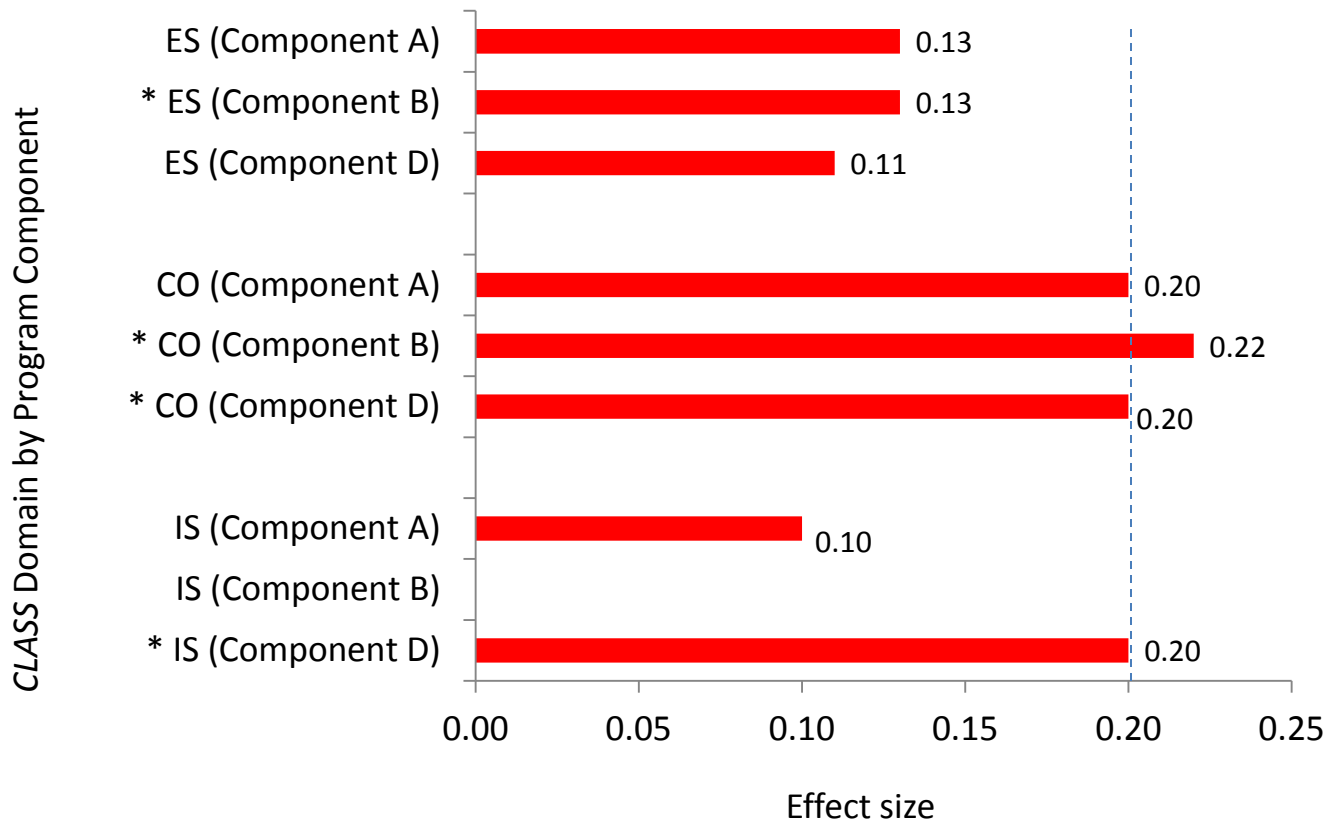
Domain Codes: ES = Emotional Support   CO = Classroom Organization IS = Instructional Support

* Significant at p<.05 (t-test)

D-IV-2 Making the Most of Classroom Interactions

1. Name of Professional Development Offering: Making the Most of CLASSroom Interactions (MMCI)

Brief (15 to 20 Word) Description: MMCI is a 10-session course that uses the CLASS as a guide to examine the impact of teacher-child interactions on children's learning. Teachstone trains local instructors to deliver the MMCI course to local teachers.

	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
X	IV. Combination of live and virtual/online

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

The three-day MMCI instructor training provides the information, activities, and forms that trainees will use to deliver the MMCI course within their organization. During the training, instructors will:
- Deepen their knowledge of the CLASS tool
  - Identify and discuss indicators and behavioral markers for each dimension
- Become familiar with the format and content of the MMCI program sessions
  - Identify and discuss effective teacher-child interactions in classroom videos
  - effectively facilitate discussions around teacher-child interactions in classroom video

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
	Professional Development Category
X	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
X	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
X	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs
	m. Communicating with diverse parents of preschool children

	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

X	Language and literacy development
X	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
X	Social and emotional development

3. Who is your target audience? (Check all that apply.)

X	Teachers
X	Coaches
	Administrators
X	Teacher Assistants
X	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

MMCI Instructors (to be trained and deliver one course): 44 hours

MMCI Students (typically teachers; one course): 20 hours

Total time for instructors (e.g., coaches), and students (e.g., teachers) for one course including instructor training: 64 hours

5. What are the goals and learning objectives of the professional development offering?

The MMCI program goals are to:
- recognize the impact of teachers' interactions with children on children's learning and development
- define and identify teacher-child interactions as defined by the CLASS tool
- use the CLASS lens as a framework for observing the key interactions in classroom video that makes a difference for children's learning.

Each course session has individual objectives around the dimension of focus, related to the stated goals above:
- Review classroom video and teacher-child interactions related to the [dimension of focus].
- Understand how the CLASS™ observation tool defines teacher-child interactions related to [dimension of focus].

- Recognize teacher-child interactions related to [dimension of focus] in classroom video.

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

For MMCI participants (teachers), their progress is measured by the instructor through (1) class discussion (whole-group and small-group) with formative feedback from instructor, (2) individual, in-class work identifying and describing interactions from video, with specific, written feedback from trained instructor, (3) individual homework assignments (video review, reflection, and application) that are reviewed by the instructor. Attendance is also taken and recorded for each session.

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

MMCI has as its main purpose to guide teacher's learning and understanding of the importance of teacher-child interactions for children's learning and development. It is taught by instructors who are reliable CLASS observers and who have been through rigorous instructor training. Instructors are also provided support and feedback by Teachstone staff during their first year teaching the MMCI program. During the 10 sessions of the MMCI program, teachers watch video of classroom practice, note effective interactions as well as missed opportunities, and have discussions with other teachers in their group, facilitated by their instructor. Teachers are encouraged to apply what they are learning to their own classroom practice and to share examples of their own classroom interactions with children. As homework assignments between face-to-face sessions, teachers are asked to think about and reflect on how they interact with children around the dimension of focus, and then to share their reflections in the next session. Teachers also watch videos on their own and write notes on the interactions they see. These written assignments are turned in to the instructor who reads them and provides written feedback to teachers. MMCI sessions are offered over a 10 week or longer time frame, and provide 20 hours of face-to-face content for teachers as well as an additional 5 hours of online and individual homework.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool.

Hilary Ritt, Director of Content Development manages the development of myTeachstone's professional development content. As director, she ensures quality delivery of our trainings for professional development. From design and development to support of effective facilitation, Hilary works across the company to be sure our trainings aimed at improving teacher-child interactions are outstanding. Hilary comes to Teachstone from the University of Virginia teacher-training program where she earned her PhD in Instructional Technology and guided pre-service math and science teachers in the integration of technology into instruction. (See Appendix 8.1b for resume/CV)

All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Advanced knowledge of Learning Management Systems
- reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

Teachstone staff have extensive experience working with teachers, directors, and other educators of children from diverse backgrounds, with diverse language needs and diverse economic backgrounds as evidenced by the fact that the CLASS tool was chosen to be used in Head Start and 32 states across the country.

Francine Oliver, Senior Manager for Professional Development is responsible for overseeing the implementation and delivery of Teachstone's wide variety of observer support and professional development services. Francine has worked as a public school teacher, teacher educator, instructional coach, and trainer for over 15 years. She comes to Teachstone via the University of Virginia where she earned her MEd in Curriculum and Instruction.

Mamie Morrow, Professional Development Specialist has over 16 years of diverse experience in education as a teacher, program manager, trainer, and coach to enhance early learning opportunities and outcomes. Currently, she supports MMCI Instructors deepening their CLASS knowledge, providing CLASS-based feedback, and developing interactive training skills to support teachers. Prior to this role at Teachstone, Mamie was an MTP coach wherein she cultivated strong relationships with 18 American Indian Head Start Pre-K teachers in New Mexico and Wisconsin, promoting effective teacher-child interactions, improving classroom organization skills, and enhancing language and literacy instruction. Prior to Teachstone, Mamie supported children in New Mexico, Germany, Guam, Alaska, Japan, Washington, D.C. and Florida. Mamie holds a Masters Degree and Bachelors of Science in Elementary Education from the University of New Mexico. She is a certified CLASS Pre-K and K-3 Observer and Trainer, MTP Coach and MMCI Specialist.

Julie Rand, Professional Development Specialist in her role as MTP Coach/Specialist works closely with educators who are focused on improving student-child interactions. She uses her extensive knowledge of the Pre-K and Toddler CLASS tools to provide collaborative trainings using the MTP model, facilitate weekly conference calls with coaches and support preschool and toddler teachers participating in Making the Most of Classroom Interactions program. Julie earned a Master's Degree in Early Childhood Studies with a specialization in Teaching Adults in the Early Childhood Education Field from Walden University and a Bachelor of Science Degree in Early Childhood Education from Chaminade University. As was a former teacher's aide, teacher, Center Director and Head Start Specialist from Hawai'i to New York, Julie has dedicated herself to supporting those in the field of Education working to ensure measurable, positive student outcomes.

10. Describe the alignment to Virginia's *Foundation Blocks for Early Learning*, Kindergarten *Standards of Learning*, and *Milestones for Child Development*, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

All CLASS trainings and CLASS-based professional development options described in this response focus on improving the quality of interactions between teachers and children around the three domains of the PK CLASS tool; Emotional Support, Classroom Organization, and Instructional Support. The CLASS tool is curriculum neutral; regardless of what curriculum is used, when teachers are more intentional and consistent in how they interact with children, the curriculum is more likely to be utilized to its full potential. Based on research findings from several studies, higher CLASS scores are associated with greater student behavioral engagement, stronger vocabulary and reading outcomes and increased math achievement. A rigorous randomized field trial, published in the journal Science, provides additional support for the causal relationship between effective teacher-student interactions and student learning gains.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.

Pre-requisites:
- To attend the MMCI Instructor training, participants must be reliable CLASS Observers. There is no prerequisite for teachers to attend the program sessions.

Resources and space requirements:
- Arrangements for physical training space that is conducive to discussion and video watching and large enough for the number of attendees
- Internet connection
- LCD projector and screen
- speakers
- extension cords
- back-up laptop
- chart paper or dry erase board/markers, tape (for mounting chart paper)
- name plates/tags for participants
- Lunch/breaks for trainer and trainees

Teachers participating in MMCI once an instructor is licensed will need internet access. MMCI Teacher Packets are required for the program and may be purchased from Teachstone. These are included in the price listed in the pricing schedule.

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

	No
X	Yes

If yes, in the space below, summarize the evaluation methods, the population in which the program has been subject to rigorous evaluation (as defined in this proposal), and provide documentation verifying the results have been subject to an external peer review process by including a copy of the study just after this attachment. (For example, if the Attachment name is D-I-1, within Tab 6 of your proposal, include it after attachment D-I-1).

The MMCI program was adapted from the CLASS course which was evaluated as a part of the NCRECE study. The college-style course used in the NCRECE study was a 14-week course. The adapted MMCI program is made up of 10 2-hour sessions, and can be delivered over 10 or more weeks. The results about the course from the NCRECE study were reported in the American Educational Research Journal abstract as follows: "Among 440 early childhood teachers, half were randomly assigned to take a 14-week course on effective teacher-child interactions. This course used the Classroom Assessment Scoring System (CLASS) as the basis to organize, describe, and demonstrate effective teacher-child interactions. Compared to teachers in a control condition, those exposed to the course reported more intentional teaching beliefs and demonstrated greater knowledge of and skills in detecting effective interactions. Furthermore, teachers who took the course were observed to demonstrate more effective emotional and instructional interactions. The course was equally effective across teachers with less than an associate's degree as well as those with advanced degrees. Results have implications for efforts to improve the quality of early childhood programs through the higher education system."[1]

Georgia's Department of Early Care and Learning also commissioned a 3 year study on the use of MMCI. The study was carried out by researchers from the Frank Porter Graham Child Development Center. They found that the 10-session MMCI course, which used a cohort model to improve teacher-child interactions, was an effective means of increasing emotional and instructional support in Georgia's Pre-K classrooms.

Further, teachers who took part in MMCI had greater knowledge of effective teacher-child interactions after participation than teachers who received other professional development options.[2]

Florida also used MMCI in a research study carried out by the University of Florida. They described it as follows : "The professional development intervention included a structured, 20☐hour training called Making the Most of Classroom Interactions (MMCI), which was developed by Teachstone. This training was supplemented by providing participating teachers with access to the Teachstone pre-K CLASS video library and individualized technical assistance. Interviews with directors and teachers were also conducted as part of the study. The study findings indicate that a short-term investment in professional development for early childhood educators can produce significant improvements on the CLASS.

The specific findings include significant gains on the CLASS post assessment in all three areas of classroom practice following the professional development intervention. The results suggest that these teachers engaged in higher quality interactions with students were more effective in responding to children's needs, provided a more effectively run classroom designed to maximize developmentally appropriate instruction, and gave students more useful feedback designed to support and extend their learning.

Providing teachers with a combination of integrated supports was an effective professional development model. Teachers who received structured training supplemented by either technical assistance or access to video supports or both made significant improvement in all three areas measured by the CLASS. The approach used in the Early Implementation Model study is widely applicable to different types of early childhood programs. There were no differences in the magnitude of post-assessment CLASS scores, gains by class size, directors' years of experience or teachers years of experience.

Teachers with a high school or equivalent diploma and those with higher levels of education experienced significant gains on the post-assessment CLASS scores. However, teachers with an associate's or bachelor's degree demonstrated greater improvements on the CLASS during the short period of this intervention.[3]

References

[1]Hamre, B. K., Pianta, R. C., Burchinal, M., Field, S., LoCasale-Crouch, J., Downer, J. T., ... Scott-Little, C. (2012). A course on effective teacher-child interactions: Effects on teacher beliefs, knowledge, and observed practice. *American Educational Research Journal, 49(1),* 88-123. (**NOTE: Teachstone cannot reproduce research articles under copyright. Therefore, Teachstone has not included copies of this particular publication as instructed by Marie Williams, Contract Officer, on July 6, 2015.**)

[2]*Georgia DECAL study,* conducted by Frank Porter Graham Child Development Center, Chapel Hill NC *(A copy of this report is included in this section immediately following question 13.)*
Access online here: http://www.fpg.unc.edu/projects/georgia-pre-kindergarten-evaluation

[3] *Florida Early Implementer Study,* conducted by University of Florida, Gainsville FL *(A copy is included in this section immediately following question 13.)*
Access online here: CLASS Early Implementer Study FINAL REPORT.pdf

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

MMCI Instructors in Training (with Teachstone)

Face-to-Face Professional Development (with Teachstone)		Total
3	Days	**24 hours/ instructor with Teachstone (one time)**
8	Hours per Day	
n/a	Months to Complete	

MMCI Instructors Delivering Training to Teachers

10	Days of Face-to-Face Professional Development (Instructor with Teachers)	Total
2	Hours per day of Face-to-Face Professional Development (Instructor with Teachers)	**40 hrs/ instructor (per MMCI course)**
20	Total Hours Online Professional Development (Instructor)	
2	Minimum Time for each segment/lesson of Online Professional Development	

Teachers Receiving MMCI Instruction from MMCI Instructors

10	Days of Face-to-Face Professional Development (Teacher with Instructor)	Total
2	Hours per day of Face-to-Face Professional Development (Teacher with Instructor)	**25 hours/ teacher**
5	Total Hours Online Professional Development (Teacher)	
0.5	Minimum Time for each segment/lesson of Online Professional Development	

Please describe, including the time participants will need to commit, here.

To become an MMCI instructor, reliable CLASS observers must attend a three-day face-to-face training (24 hours). Following successful completion of the training, instructors may begin teaching the 10-session course. Prep time for each session is approximately one hour, review of teacher assignments outside of class is approximately one hour, and each session is two hours in length for a total of 4 hours of instructor time per session. Sessions may be delivered once a week for 10 consecutive weeks, or in other configurations.

MMCI is largely a face-to-face training, but teachers are required to watch videos online in preparation for program sessions. MMCI is a 10-session course and each session is 2 hours in length, for a total of 20 hours of face-to-face training time. Additionally, teachers watch videos online and read from their Dimensions Guide in preparation for each program session. The preparation time for teachers before each session is approximately 30 minutes.

In summary, instructors spend 24 hours in training to become an instructor, and then spend 40 hours each time they teach the MMCI program. Teachers attending the MMCI program spend 25 hours across the 10 sessions which may be offered across 10 weeks or longer.

Georgia's Pre-K Professional Development Evaluation: Final Report

December 2014

Diane M. Early
Frank Porter Graham Child Development Institute
University of North Carolina at Chapel Hill

Kelly L. Maxwell
Child Trends

Debra Skinner, Syndee Kraus, Katie Hume, Yi Pan
Frank Porter Graham Child Development Institute
University of North Carolina at Chapel Hill

Table of Contents

Georgia's Pre-K Professional Development Evaluation

Executive Summary

Georgia has been at the forefront of the pre-kindergarten movement since implementing its pre-k program in 1992 and creating the nation's first state-funded universal pre-k program in 1995. Georgia's Pre-K, administered by Bright from the Start: Georgia Department of Early Care and Learning (DECAL), aims to provide high-quality preschool experiences to four-year-olds to help prepare them for kindergarten. Past research indicates that participation in state-funded pre-k is linked to higher academic and social skills in children when they enter school (Gormley, Gayer, Phillips, & Dawson, 2005), with higher quality programs linked to greater gains (Howes et al., 2008). Thus, the quality of classroom practices and teacher-child interactions is critical to ensuring that pre-k provides maximum benefits to children.

This study evaluated the impact of two professional development models—Making the Most of Classroom Interactions and MyTeachingPartner™—on teacher-child interactions in Georgia's Pre-K classrooms. At the start of each school year of this three-year study (2011-12, 2012-13, 2013-14), lead teachers (*n* = 486 over the entire project) were randomly selected to participate and randomly assigned to one of the professional development models or a control group. Because of this rigorous design, we can be confident that any differences between the groups at the end of the study were caused by the professional development activities and that the findings reflect the type of change we would anticipate among Georgia's Pre-K teachers if these models were broadly implemented. Data collection included pre- and posttest classroom observations and teacher questionnaires, as well as coach/instructor questionnaires and administrative information regarding participation in the professional development activities.

Professional Development Models

The two professional development models evaluated in this study are designed to improve teacher-child interactions as measured by the *Classroom Assessment Scoring System™ (CLASS)*. The *CLASS* focuses on three domains of teacher-child interaction: Emotional Support, Classroom Organization, and Instructional Support. The supports for both models were delivered by Georgia's Pre-K consultants, as part of their regular job duties.

Making the Most of Classroom Interactions (MMCI). MMCI is a face-to-face professional development model, in which a group of teachers meets regularly with trained instructors to learn to identify and analyze effective interactions in classrooms and discuss ways to interact intentionally to increase children's learning. Teachers have access to an online library of video clips demonstrating best practice in various aspects of teacher-child interactions, and complete homework assignments that involve watching specific videos and practicing interactions in the classroom. For the current project, the 10 MMCI workshops were delivered over five training days.

MyTeachingPartner™(MTP). MTP is a one-to-one, remote coaching model that provides specific feedback to teachers about Emotional Support, Classroom Organization, and Instructional Support using a standardized coaching cycle format. Additionally, teachers have access to an online library of video clips demonstrating best practice in various aspects of teacher-child interactions.

Primary Evaluation Questions

This evaluation was designed primarily to address two major questions:

1. Were the interventions effective in improving teacher-child interactions in pre-kindergarten classrooms?
2. How were the interventions perceived by Georgia's Pre-K consultants and teachers?

In addition to these major questions, Georgia's Pre-K leaders were interested in examining whether the interventions were more effective in certain circumstances, for certain kinds of teachers, or with certain types of consultants.

Method

- 486 Georgia's Pre-K lead teachers were randomly selected to participate from counties being targeted for support by Georgia's Race to the Top (RT3) K-12 grant.
- Selected teachers were randomly assigned to one of three groups: 175 to MMCI, 151 to MTP, 160 to control.
- *CLASS* observations and teacher questionnaires were collected in the fall and spring.
- MMCI instructors and MTP coaches also completed questionnaires and participated in semi-structured interviews.

Results

The 10-session MMCI course, which used a cohort model to improve teacher-child interactions, was an effective means of increasing emotional and instructional support in Georgia's Pre-K classrooms. Further, teachers who took part in MMCI had greater knowledge of effective teacher-child interactions after participation than did their peers in the MTP or control groups and thought their professional development was more valuable than did their peers in the control group. Their

Summary of Evaluation Findings

	MMCI vs. control	**MTP vs. control**	**MMCI vs. MTP**
Emotional Support	MMCI > control	MTP > control	No difference
Classroom Organization	No difference	No difference	No difference
Instructional Support	MMCI > control	No difference	No difference
Knowledge of Effective Teacher-Child Interactions	MMCI > control	No difference	MMCI > MTP
Perceived Value of the Professional Development	MMCI > control	MTP > control	No difference
Relationship with the Coach/Instructor	Not applicable	Not applicable	MTP > MMCI

relationships with their instructors were positive, but somewhat less positive than those reported by teachers participating in MTP. Interviews with MMCI instructors suggest that they had very positive experiences with the model and felt it was a good fit for the state.

Teacher-child interactions among teachers in the one-to-one MTP coaching group also showed some improvement, but less than the MMCI teachers. Emotional Support increased as a result of participation in MTP; Classroom Organization, Instructional Support, and knowledge of effective teacher-child interactions did not. MTP teachers saw their professional development activities as more valuable than control-group teachers, and MTP teachers reported more positive relationships with their coach than did MMCI teachers.

Conclusions

Georgia's Pre-K teachers benefited from and liked both the MMCI and MTP interventions. This study sought to test MMCI and MTP as possible ways to improve teacher-child interactions in real-world conditions, such as delivery of the intervention by program staff and randomly selecting teachers rather than asking for volunteers. When compared to teachers in the control group, MMCI resulted in improvements in two domains; MTP resulted in improvements in one domain. Pre-k teachers rated both interventions more favorably than did teachers in the control group.

MMCI is a feasible intervention for large-scale adoption. MMCI requires fewer staff members and less time to implement than MTP, which makes it more feasible and sustainable for large-scale implementation. Georgia's Pre-K consultants, who served as MTP coaches and MMCI instructors, also expressed their support of the relative feasibility of MMCI. MTP coaches reported that although they valued the MTP experience, state-wide implementation was not achievable and that its costs (in terms of time, money, and effort) were too great for the amount of benefit. MMCI, on the other

hand, was generally viewed by instructors as both practicable and beneficial for teachers.

Additional research is needed to understand better the circumstances under which MMCI and MTP are most likely to support meaningful improvements in teacher-child interactions. The findings from this evaluation add to the literature about the MMCI and MTP interventions (e.g., Downer et al., 2009; Hamre et al., 2012) and provide some data about the factors (e.g., teacher education, ratios) that may influence the effectiveness of the interventions. There are many important questions still to answer about these interventions. For instance, is there a minimum, maximum, or ideal number of MTP cycles that yields the greatest change in teacher practice? This study provides important information about the likely attainable dosage within a large-scale implementation, which was less than the dosage received when MTP was implemented by its developers (Pianta et al., 2014). We need additional work, however, to understand the range of supports teachers and coaches need to ensure that the models are implemented in a way that provides maximum benefit.

Advancements in early childhood professional development are still needed. Using these well-defined, evidence-based professional development models, some statistically significant findings emerged. The improvements, however, were small and instructional support in all three groups remained in the low-to-middle range. Thus, additional work is needed, including refinement of existing models and creation of new approaches to professional development, to best support all pre-k teachers in engaging in high-quality interactions with their students.

Georgia's Pre-K Professional Development Evaluation

Introduction

Georgia has been at the forefront of the pre-kindergarten movement since implementing its pre-k program in 1992 and creating the nation's first state-funded universal pre-k program in 1995. Georgia's Pre-K, administered by Bright from the Start: Georgia Department of Early Care and Learning (DECAL), aims to provide high-quality preschool experiences to four-year-olds to help prepare them for kindergarten. Past research indicates that participation in state-funded pre-k is linked to higher academic and social skills in children when they enter school (Gormley, Gayer, Phillips, & Dawson, 2005), with higher quality programs linked to greater gains (Howes et al., 2008). Thus, the quality of classroom practices and teacher-child interactions is critical to ensuring that pre-k provides maximum benefits to children.

Georgia's Pre-K is offered in all 159 counties across the state and served over 81,000 four-year-olds in the 2013-14 school year. The program is offered in a variety of settings, including private childcare, local schools, Head Start centers, military bases, technical colleges, and not-for-profit programs. All lead teachers are required to hold a minimum of a four-year degree in early education or a related field, and in 2013-14 over 75% of the teachers were certified to teach early childhood education. Each classroom also employs an assistant teacher who is required to have at least a Child Development Associate (CDA) credential. A strength of Georgia's Pre-K is its monitoring and technical assistance system. Each program is assigned a pre-k consultant, who ensures compliance with the program's standards while also providing training and technical assistance. A recent evaluation concluded that participation in Georgia's Pre-K program significantly improved children's school readiness skills across a wide range of language, literacy, math, and general knowledge measures (Peisner-Feinberg, Schaaf, LaForett, Hildebrandt, & Sideris, 2014).

For the past few years, DECAL has used the *Classroom Assessment Scoring System™* (*CLASS*; Pianta, LaParo, & Hamre, 2008) to understand better the instructional practices and teacher-child interactions in its pre-k classrooms and to provide a framework for its pre-k teachers' professional development. The *CLASS* is an observational tool focused on the aspects of teacher-child interactions that are most closely aligned with children's social, emotional, and academic outcomes. DECAL's efforts regarding professional development for pre-k teachers were greatly expanded in 2010, when Georgia was awarded a $400 million federal Race to the Top (RT3) grant. The purpose of the RT3 grant was "to equip all Georgia students, through effective teachers and leaders and through creating the right conditions in Georgia's schools and classrooms, with the knowledge and skills to empower them to (1) graduate from high school, (2) be successful in college and/or professional careers, and (3) be competitive with their peers throughout the United States and the world" (Georgia Department of Education, n.d.). To meet these goals, Georgia undertook seven initiatives. As part of the Improving Early Learning Outcomes initiative, DECAL received RT3 funds to provide professional development based on the *CLASS* to a sample of pre-k teachers in selected counties in Georgia. Existing Georgia's Pre-K development funds also supported this work. The current project was designed to evaluate the effectiveness of two different professional development models—both based on the *CLASS*—on improving the quality of teacher-child interactions.

Professional Development Models

The two professional development models evaluated in this study were designed to improve teacher-child interactions as measured by the *CLASS*. The two models and the *CLASS* observation tool were developed by researchers at the University of Virginia. Those same researchers founded an organization called Teachstone to train individuals on the use of the *CLASS* and to support implementation of the professional development models. For the current study, the two professional development models were delivered by pre-k consultants in Georgia who were trained and supported by Teachstone.

Making the Most of Classroom Interactions (MMCI).
MMCI is a face-to-face professional development model, in which a group of teachers meets regularly with trained instructors to learn to identify and analyze effective interactions in classrooms and discuss ways to interact intentionally to increase children's learning. Enrolled teachers have access to print and web-based resources aligned with the *CLASS* measure. Between in-person sessions, teachers complete homework assignments that involve watching specific videos and practicing interactions in the classroom. MMCI consists of 10 two-and-a-half-hour workshops. Hamre and colleagues (2012) found that a similar course based on the *CLASS* was effective in improving teacher knowledge, Emotional Support, and Instructional Support as measured by the *CLASS*. In this study, Georgia's Pre-K consultants served as MMCI

instructors, with each MMCI cohort being team-taught by a pair of Georgia's Pre-K consultants. For the current project, the 10 sessions were delivered over five training days, spread across five months.

MyTeachingPartner™(MTP). MyTeachingPartner is a one-to-one, remote[1] coaching model that provides specific feedback to teachers about emotional climate, organizational structure, and instructional support using a standardized coaching cycle format. During each cycle, the participating pre-k teacher makes a video recording of her or himself interacting with children in the classroom and sends it to the coach, who then reviews the video and posts feedback and questions about the interactions with children to Teachstone's secure website for the teacher to review. The coach's prompts provide detailed feedback and help teachers observe their classroom interactions more closely. After the teacher responds to the prompts, the teacher and coach have a one-to-one conference call to further discuss the teacher's practice. The feedback and discussions focus on what the teacher is doing well and how the teacher could continue to develop in specific areas, using the *CLASS* as the framework for understanding elements of interactions that support children's development and learning. Shortly after the one-to-one conference call, the coach sends the teacher a brief summary of the main topics covered during the conference and the action plan, detailing the mutually agreed upon plan for the next cycle. Additionally, teachers have access to an online library of video clips demonstrating best practice in various aspects of teacher-child interactions. Pianta and colleagues (2008) found that teachers who took part in MTP showed more growth in teacher-child interactions than teachers who had access to web-based materials only. Mashburn, Downer, Hamre, Justice, and Pianta (2010) found that children in MTP classrooms made greater language and literacy gains compared to children in comparison group classrooms. For this project, Georgia's Pre-K consultants served as MTP coaches. A cycle requires a minimum of two weeks to complete. Coaches and teachers were instructed to complete as many cycles as possible during the year, and when possible the data collection team waited until at least eight cycles had been completed before conducting the posttest.

Primary Evaluation Questions

This evaluation was designed primarily to address two major questions:
1. Were the interventions effective in improving teacher-child interactions in pre-kindergarten classrooms?

2. How were the interventions perceived by Georgia's Pre-K consultants and teachers?

In addition to these major questions, Georgia's Pre-K leaders were interested in examining whether the interventions were more effective in certain circumstances, for certain kinds of teachers, or with certain types of consultants.

Key Strengths of the Implementation

This project was designed to help DECAL evaluate the utility of these professional development models when implemented under "real-world" conditions. Previous research has established that the two models can improve teacher-child interactions when used by teachers who have volunteered to participate and the supports are delivered by university researchers (Pianta et al., 2008; Hamre et al., 2012). This project expands on that work by considering their impact when implemented as they would be if adopted as part of a statewide professional development framework.

To that end, this project has two key strengths. First, existing state agency staff—rather than model developers—delivered the intervention. Teachstone staff members trained the pre-k consultants to serve as MMCI instructors and MTP coaches and provided support and advice throughout the project, but they were not directly responsible for delivering the interventions. For these professional development models to be viable in large systems such as Georgia's Pre-K, it is important that they can be implemented by trained agency staff. Relying solely on the model developers is not feasible on a large scale. Thus, this study represents a more real-world test of the interventions by examining the extent to which more novice coaches and instructors, who have other work responsibilities, can implement the interventions and change classroom practices.

Second, in this study, pre-k lead teachers were randomly selected to participate in the professional development. In similar studies of professional development models, teachers elected to participate (Pianta et al., 2008; Hamre et al., 2012), meaning only individuals who were interested in changing their practice took part. In the current project, the two professional development models were provided to teachers as part of the ongoing, required professional development for pre-k teachers in participating counties. For a system such as Georgia's Pre-K to improve classroom quality on a large scale, it cannot rely only on teachers who have elected to participate. Again, this study represents a more real-world test of the interventions by examining the extent to which they can change the practices of teachers who vary in their motivation, interest, and commitment to the professional development opportunity.

---

[1]MTP is intended to provide remote coaching. In the current study, however, a coach may have met with a teacher in person one or two times to deliver the coaching, if proximity allowed. This was not consistent or sustained.

Method

Highlights

- 486 Georgia's Pre-K lead teachers were randomly selected to participate from counties being targeted for support by Georgia's K-12 Race to the Top (RT3) grant.
- Selected teachers were assigned at random to one of three groups: 175 in MMCI, 151 in MTP, and 160 in control.
- In the fall and spring, independent data collectors employed by the research team conducted *CLASS* observations and collected teacher questionnaires.
- MMCI instructors and MTP coaches also completed questionnaires and participated in semi-structured interviews regarding their experiences in delivering the professional development models.
- At the start of the study, the three groups were equivalent in terms of observed teacher-child interaction, as well as teacher, classroom, and program characteristics.
- Study attrition was low and was equally distributed across the three groups.

Study Overview

This study's primary purpose was to evaluate the impact of two professional development models on teacher-child interactions in Georgia's Pre-K classrooms. Teachers were randomly selected to participate and were assigned to one of the professional development models or a control group. Because of this rigorous design, we can be confident that any differences between the groups at the end of the study were caused by the professional development activities and that the findings reflect the type of change we would anticipate among Georgia's Pre-K teachers if these models were broadly implemented. Data collection included pre- and posttest classroom observations, teacher questionnaires, coach and instructor questionnaires, and administrative information regarding participation in the professional development activities.

Teacher Selection and Random Assignment

During this three-year study (2011-12, 2012-13, 2013-2014), a new cohort of lead teachers was selected for participation at the start of each school year. As a first step, each year DECAL selected counties for participation based on the Georgia's Pre-K consultants' capacity to serve various geographic areas. Eligible counties were those where the school system had elected to participate in Georgia's K-12 RT3 initiative.[2] Across the three years, almost all RT3 school systems were included. See Figure 1 for a map of counties that were selected each year for participation in this study. Within the selected counties, all types of Georgia's Pre-K providers (e.g., schools, childcare centers, military bases) were eligible for participation.

Once the counties were selected, DECAL sent a list of all Georgia's Pre-K schools/centers and classes in each county to the FPG evaluation team for random selection and assignment of lead teachers to one of the professional development groups (i.e., MTP, MMCI, or control). DECAL determined the size for each group for each year, based on their consultants' availability, their resources to fund the supports, and targets they had set in their original RT3 scope of work, resulting in slightly different numbers of teachers in each group. See Table 1 for sample sizes.

Teachers were given $100 in the fall and $100 in the spring, in recognition of their time and effort. All teachers were eligible to participate in this study except: (1) those who were in their first year as a Georgia's Pre-K teacher or (2) those who would be absent most of the year (due, for example, to a medical condition or pregnancy). First-year teachers were excluded because DECAL provides introductory professional development to all first-year Georgia's Pre-K teachers, and DECAL thought it was important for all teachers to experience that program.

Table 1. Sample Sizes by Year[3]

	Year 1 2011-12	Year 2 2012-13	Year 3 2013-14	Total
MMCI	50	69	56	175
MTP	45	65	41	151
Control	51	63	46	160
TOTAL	146	197	143	486

Table 2 provides descriptive information about the participating teachers. Participating pre-k teachers were well-educated, with almost all having a Bachelor's degree or higher. On average, they had spent over six years teaching in Georgia's Pre-K, but there was variability in teaching experience across teachers. Average class size, as observed during the *CLASS* observation, was about 19 students.[4] More than half of the pre-k classrooms were in private settings (i.e., not public schools), and the sample was fairly evenly split between the Atlanta metro area and elsewhere.
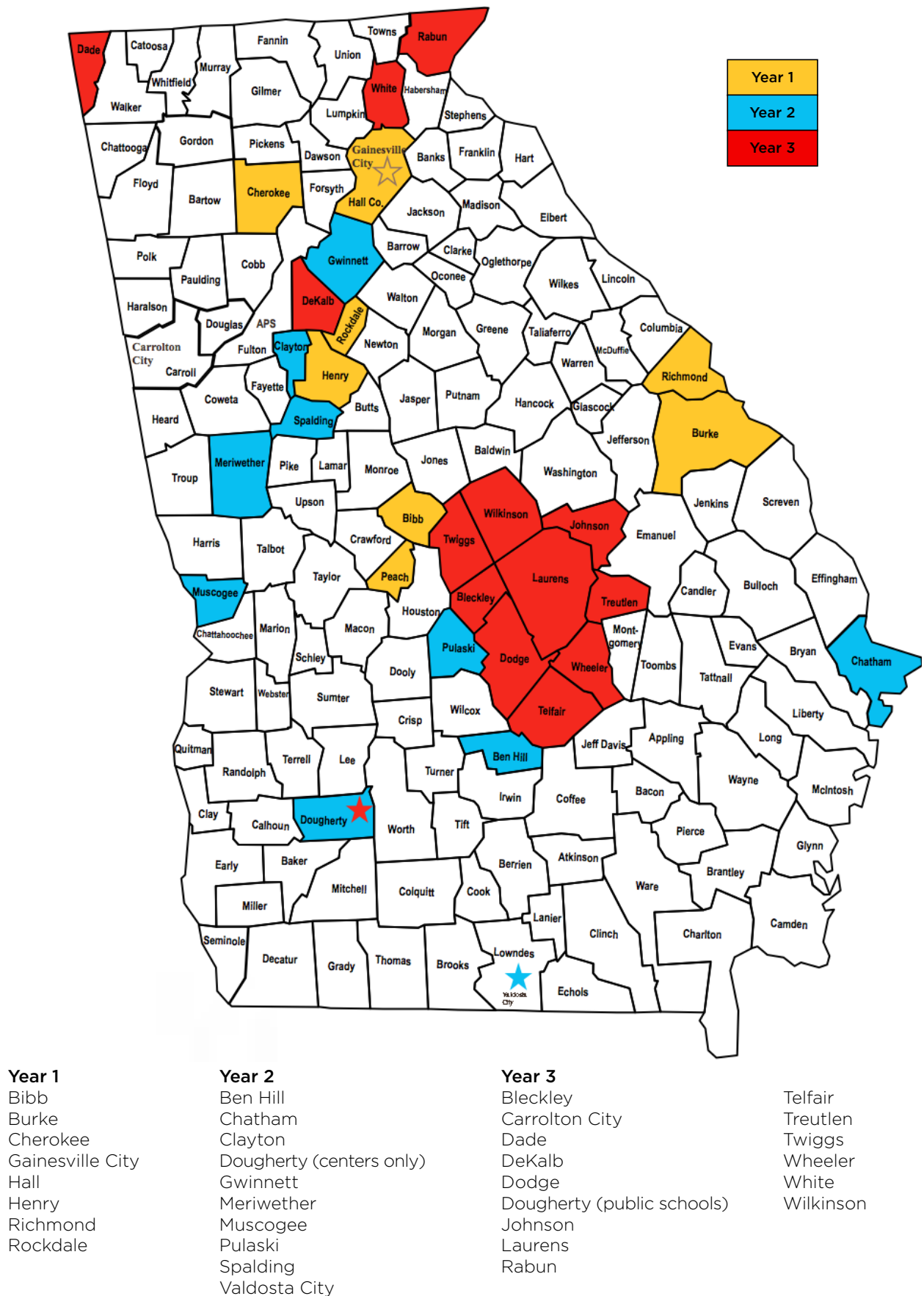
In order to ensure that the groups were equivalent at the start of the study, teachers and classrooms in each of the three professional development groups were compared on all characteristics listed on Table 2. No between-group differences on these characteristics were found. Additionally, the groups were

---

[2]During the third year, a few non-Race to the Top counties were included.

[3]These values reflect the number of teachers who took part in both the pre- and posttest.

[4]At the start of each *CLASS* cycle, the observer counted the number of children present. Each classroom's group size was calculated by taking the average of those cycles.

Figure 1. Counties Selected for Participation in Georgia's Pre-K Professional Development Evaluation

Year 1	Year 2	Year 3	
Bibb	Ben Hill	Bleckley	Telfair
Burke	Chatham	Carrolton City	Treutlen
Cherokee	Clayton	Dade	Twiggs
Gainesville City	Dougherty (centers only)	DeKalb	Wheeler
Hall	Gwinnett	Dodge	White
Henry	Meriwether	Dougherty (public schools)	Wilkinson
Richmond	Muscogee	Johnson	
Rockdale	Pulaski	Laurens	
	Spalding	Rabun	
	Valdosta City		

Table 2. Teacher, Classroom, and Program Characteristics

	Overall	MMCI	MTP	Control
Teacher Characteristics				
Mean (range) years teaching in Georgia's Pre-K	6.11 (1 to 25)	5.97 (1 to 25)	6.30 (1 to 20)	6.08 (1 to 21)
Educational attainment[5]				
Less than BA/BS	9%	8%	9%	9%
BA/BS	65%	66%	68%	62%
Advanced degree	26%	26%	23%	29%
Mean (range) years of education	16.50 (13 to 21)	16.51 (13 to 21)	16.43 (14 to 21)	16.56 (13 to 21)
Classroom Characteristics				
Mean (range) observed class size	18.95 (9 to 28)[6]	19.21 (9 to 28)	19.12 (11 to 27)	18.51 (11 to 22)
Mean (range) observed children per adult	9.36 (4 to 13)	9.42 (5 to 13)	9.48 (4 to 13)	9.17 (5 to 13)
Program Characteristics				
Center based/ school-based	63%/37%	59%/41%	69%/31%	61%/39%
In Metro Atlanta/out of Metro Atlanta	48%/52%	46%/54%	50%/50%	47%/53%

compared on proportion of enrolled children whose families were receiving public assistance, and pretest *CLASS* scores. Again, no between-group differences were found. The lack of between-group differences suggests that the randomization process was successful in creating comparable groups. Coupled with the random assignment, this lack of difference further increases our confidence that differences found after participating in the intervention were caused by the professional development, rather than by some other differences between the groups.

Participation in the Professional Development Activities

In general, implementation of the professional development models was successful, with most teachers taking advantage of the supports provided. As described below, however, there were some exceptions. The analyses presented in this report are based on an intent-to-treat approach in which all teachers were retained in the sample after assignment, regardless of actual participation in the professional development activities. The only exceptions were 27 teachers (5%; 8 MMCI, 8 MTP, 11 control) who stopped teaching in Georgia's Pre-K between the pre-and posttest.

Including all originally selected teachers in this way is a conservative test of the interventions' effectiveness and means that findings from this study tell us about the types of changes we would likely see if such supports were implemented broadly. Studies where teachers elect to participate rather than being randomly selected, or where teachers are excluded from the analyses if they do not take part in the professional development activities, only provide information about the types of effects seen in ideal circumstances.

In the real world, participation in any sort of intervention varies; by including all teachers who were selected, regardless of actual participation, we gain a clearer picture of real-world effects. DECAL did a good job of encouraging teachers to take advantage of the supports, but as with any intervention, there was variation in the extent to which teachers took part. Details regarding the implementation of each of the interventions appear below.

MMCI. The MMCI sessions began in October or November of each year and continued through February or March, with approximately one training day per month.

---

[5]Teachers were asked to indicate on the questionnaire the highest level of education they had completed. All teachers had at least some college. For educational attainment, those who reported some college or an AA/AS degree were considered "less than a BA/BS," those who had a BA/BS or some graduate coursework were considered "BA/BS," and those with an MA/MS degree or an Ed.D. or Ph.D. degree were considered "Advanced Degree." For years of education: some college = 13, AA/AS Degree = 14, BA/BS degree = 16, some graduate coursework = 17, MA/MS = 18, Ed.D. or Ph.D. = 21
[6]Only two teachers had observed average class sizes over 23. In both cases, those were due to periods of the day when multiple classes were combined.

Each training day covered two of MMCI's 10 sessions. On a typical training day, participants would complete one session in the morning, then break for lunch, and reconvene for a second session in the afternoon. Sessions were co-taught by teams of Georgia's Pre-K consultants. The group sizes ranged from 8 to 20 teachers, with an average of 11. Sessions were located in various regions throughout the state to minimize the travel time for teachers. When multiple teachers from the same school or center were in the MMCI group, they were typically in the same MMCI session; however, all MMCI sessions contained teachers from multiple schools/centers. Of the 175 teachers in the MMCI group, 170 (97%) attended all 10 MMCI sessions. Of the five remaining teachers, one attended eight sessions, one teacher attended two sessions, and three did not attend any sessions.

MTP. MTP coaching began in September of each year and typically continued through April. Cycles of videotaping, sending the tape to the coach for review, and receiving feedback typically took two weeks to complete, but could take longer. There was no pre-determined goal for the number of MTP cycles teachers should complete. Instead, coaches and teachers were instructed to complete as many cycles as possible during the year, and when possible the data collection team waited until at least eight cycles had been completed before conducting the posttest. The average number of cycles completed before the posttest was 7.6 (*range = 2 to 13*). Forty-four teachers (29%) completed more than eight cycles; 40 (27%) completed exactly eight cycles; 59 (39%) completed five, six, or seven cycles, and eight teachers (5%) completed less than five.

Control group. In the first year of the study, teachers in the control group (*n* = 51) had access to the same online library of video clips demonstrating best practices in various aspects of teacher-child interactions as the MTP teachers. In the second and third years, teachers in the control group (*n* = 109) participated in the same types of professional development as Georgia's Pre-K teachers who were not in the study. DECAL contracted with Georgia State University to provide this training. Topics varied, but included behavior management, child assessment, outdoor learning, and others. None of their professional development focused on the *CLASS.*

Information Collected
Classroom Assessment Scoring System™. The *CLASS* is an observation tool measuring teacher-child interactions. Both MTP and MMCI are designed to improve teacher-child interactions, as defined and measured

by the *CLASS.* The *CLASS* is made up of 10 dimensions, organized into three domains. The Emotional Support domain includes the dimensions of positive climate, negative climate, teacher sensitivity, and regard for student perspectives. The Classroom Organization domain includes behavior management, productivity, and instructional learning formats. The Instructional Support domain includes concept development, quality of feedback, and language modeling. Each dimension is rated from one to seven, with one or two indicating the classroom is low on that dimension; three, four, or five indicating that the classroom is in the mid-range; and six or seven indicating the classroom is rated high on that dimension. Observers rate the classrooms and teachers on the 10 dimensions roughly every 30 minutes throughout the observation morning. For this project, six 30-minute observation cycles were completed in each room. At the start of each of the six *CLASS* cycles, data collectors noted the number of children and staff present.

For this project, independent data collectors conducted a *CLASS* observation in the classroom of each participating teacher at the start and the end of the school year. On average, there were 194 (SD = 29, range 128 to 259) calendar days between the pre- and posttest observations. Data collectors did not collect posttests in classrooms in which they had collected pretests and were unaware of the project's design and blind to the teachers' professional development group assignment.

All data collectors were trained and certified by Teachstone as able to reliably use the *CLASS.* Approximately 10% of the observations were conducted as reliability visits, in which two data collectors were present for the observation to ensure that all data collectors were continuing to score in the same manner. See the Technical Appendix for details about inter-rater reliability.

Teacher questionnaires. Each participating teacher was asked to complete a questionnaire at the same time as the *CLASS* observations were conducted. The response rate was high, with 484 of 486 teachers (99.6%) completing the pretest questionnaire and 465 (95.7%) completing the posttest questionnaire.

The pretest teacher questionnaire included information about teacher characteristics (e.g., education, experience), *Knowledge of Effective Teacher-Child Interactions*[7] *and* Adult-Centered Beliefs. The posttest questionnaire included both of those scales again, as well as *Perceived Value of the Professional Development* and *Relationship with Coach/Instructor* (MMCI and MTP teachers only). All scales are described below.

---

[7]This scale was included on the pretest questionnaire only in the second and third years of the study. Analyses of the scale were conducted using posttest questionnaires only, which included this scale in all three years.

Knowledge of Effective Teacher-Child Interactions
(Hamre & LoCasale-Crouch, 2009). Sometimes knowledge changes before practice (Hamre et al., 2012), so in addition to observations of practice, we also gathered information about teachers' knowledge of effective teacher-child interactions. This nine-item scale tests teachers' knowledge of interactions that lead to positive development, using a *CLASS* framework. It presents respondents with scenarios that they might encounter in the classroom and asks them to select the best response to each from four alternatives. Using a slightly longer version of this tool (14 items), Hamre and colleagues (2012) found that teachers who participated in a course on effective teacher-child interactions, similar to MMCI, scored higher than control-group teachers. A sample of an item reads:

> Before reading a story about autumn, the teacher wants to develop the children's understanding of autumn concepts by making connections to previous learning. One strategy she can use is: (1) having children share what they remember about the book they read yesterday, (2) sing a song that cues the class it is time for book reading, (3) review the letter sounds and parts of the word fall, and (4) remind them about their discussion of leaves falling off trees.

Adult-Centered Beliefs. Teachers' adult-centered beliefs were measured with a 16-item scale adapted from Schaefer and Edgerton's (1985) parental modernity scale. These items distinguish between traditional or relatively adult-centered perspectives of interactions with children and more modern or progressive child-centered perspectives. Teachers responded using a five-point scale ranging from strongly disagree to strongly agree. Teachers with more adult-centered views agreed with statements such as "Children should always obey the teacher." Teachers with more child-centered beliefs endorsed statements such as "Children have a right to express their own point of view and should be allowed to express it." Pianta and colleagues (2005) found that teachers with more adult-centered beliefs scored lower on several measures of classroom quality, including teacher-child interactions as measured by the *CLASS*. Those authors argue that more child-centered beliefs may reflect a better understanding of children's developmental needs and teachers' comfort and skill in interacting with young children.

Perceived Value of the Professional Development
(LoCasale-Crouch, Downer, & Hamre, 2009a). In the spring, all teachers were asked to respond to nine items regarding their perceptions of the professional development they had received that year, using a five-point scale ranging from strongly disagree to strongly

agree. The items were first used by the National Center for Research on Early Childhood Education (n.d.) for evaluating MTP and a course similar to MMCI. Sample items include "I feel more confident in my role as a teacher than I did before this professional development," and "This professional development stimulated my enthusiasm for further learning."

Relationship with Coach/Instructor
(LoCasale-Crouch, Downer, & Hamre, 2009a). MMCI and MTP teachers were asked to respond to an additional five items, using the same five-point scale. These items specifically addressed the role and relationship with the coach/instructor. Control teachers were not asked to respond to these because their professional development did not necessarily involve a coach/instructor (e.g., access to online materials). A sample item reads: "The instructor/coach was enthusiastic about teaching/coaching."

MTP coach and MMCI instructor questionnaires. Each spring, MTP coaches and MMCI instructors[8] were asked to complete questionnaires that included items about educational background, years of experience as a consultant, and the *Knowledge of Effective Teacher-Child Interactions* and *Adult-Centered Beliefs* scales described above. Additionally, coaches and instructors responded to questions regarding their confidence in their understanding of the *CLASS* tool and ability to be an effective coach/instructor, using five items written by LoCasale-Crouch, Downer, and Hamre (2009b). An example of an item on the *Confidence* scale reads: "I am confident teachers will change their practice as a result of working with me." Coaches/instructors responded using a five-point scale ranging from strongly disagree to strongly agree. Questionnaire data from 28 of the 30 (93%) coaches and instructors who took part in this project at any point are included in the current analyses.

Semi-Structured Interviews with MTP Coaches and MMCI Instructors
As part of the evaluation, in the spring of the final year an independent researcher conducted semi-structured interviews with 21 Georgia's Pre-K consultants who were serving as an MTP coach, MMCI instructor, or both during the project's third year. Consultants were asked a range of questions about the effectiveness and ease of delivery of the programs, components that worked well or not so well, changes in themselves and in the teachers they coached, and the value and sustainability of the program. Consultants who participated in the interviews had an average of 6.9 years of experience as Georgia's Pre-K consultants, with a range of 2.5 to 11 years. Over the course of the evaluation, 11 of them had served as both MTP coaches and MMCI instructors, while 10 had served only as MTP coaches.

---

[8]MMCI sessions were co-taught by pairs of Georgia's Pre-K consultants. All analyses reported here average the responses of each pair prior to analysis.

Table 3. Descriptive Statistics for Key Variables by Professional Development Group

	MMCI (*n* = 175)[9]		MTP (*n* = 151)		Control (*n* = 160)	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
Emotional Support						
Mean	5.63	5.87	5.53	5.73	5.57	5.58
Range	2.79 to 6.83	2.50 to 6.96	2.88 to 6.92	3.38 to 6.88	2.83 to 6.92	2.21 to 6.75
Classroom Organization						
Mean	5.25	5.50	5.11	5.39	5.19	5.30
Range	2.22 to 6.89	2.44 to 6.89	1.50 to 6.83	2.56 to 6.83	2.33 to 6.67	2.72 to 6.72
Instructional Support						
Mean	2.56	2.92	2.61	2.76	2.65	2.65
Range	1.06 to 5.22	1.17 to 5.28	1.00 to 5.61	1.06 to 5.50	1.11 to 4.94	1.06 to 4.61
Number Correct on the Knowledge of Effective Teacher-Child Interactions						
Mean	NA	7.57	NA	7.20	NA	7.20
Range	NA	2 to 9	NA	3 to 9	NA	3 to 9
Perceived Value of the Professional Development						
Mean	NA	4.27	NA	4.22	NA	3.95
Range	NA	1.63-5.00	NA	1.00-5.00	NA	1.00-5.00
Relationship with the Coach/Instructor						
Mean	NA	4.54	NA	4.72	NA	NA
Range	NA	3.40 to 5.00	NA	1.00 to 5.00	NA	NA

Table 4. Summary of Evaluation Results

	MMCI vs. control	MTP vs. control	MMCI vs. MTP
Emotional Support	MMCI > control	MTP > control	No difference
Classroom Organization	No difference	No difference	No difference
Instructional Support	MMCI > control	No difference	No difference
Knowledge of Effective Teacher-Child Interactions	MMCI > control	No difference	MMCI > MTP
Perceived Value of the Professional Development	MMCI > control	MTP > control	No difference
Relationship with the Coach/Instructor	Not applicable	Not applicable	MTP > MMCI

Results

This section begins with descriptive information about the key outcomes. Next, we turn to the main research questions regarding how the professional development models affected teacher-child interactions. Those are followed by findings about between-group differences in knowledge of effective teacher-child interactions, perceived value of the professional development, and perceptions of the coach/instructor. (See Table 4 for a summary of the main results.) Finally, we describe some analyses that consider teacher, classroom, site, and coach/instructor characteristics that might be linked to greater benefits from the professional development models. It is important to note that these follow-up analyses are correlational—meaning we cannot be sure that the various characteristics tested caused the change in teaching—but they do give us some direction for future investigation and hints as to conditions under which these professional development models might be most beneficial. This report focuses only on information that was collected regarding both MMCI and MTP teachers. See the Technical Appendix for a detailed description of all analyses and findings.

Descriptive Information

As a first step in understanding between-group differences, we considered the descriptive statistics for each of the key variables. Table 3 presents those values. As seen on this table, in all three groups, the

---

[9]As described in the Method section, there were some missing teacher and coach/instructor questionnaires. The values on this table represent all teachers and coaches/instructors who responded.

average scores on Emotional Support and Classroom Organization were at the upper end of the mid-range at both pre- and posttest. On Instructional Support, on average, all three groups were at the upper end of the low range at both pre- and posttest.

Did MTP or MMCI Lead to Better Teacher-Child Interactions?

To test this question, we conducted statistical analyses comparing the posttest *CLASS* scores of the three groups (MMCI, MTP, and control) in each of the three domains (Emotional Support, Classroom Organization, and Instructional Support). The analyses accounted for the fact that some schools/centers included more than one participating teacher and controlled for teachers' pretest *CLASS* scores to adjust for any differences between teachers at the start to the project.

Findings indicated that at the end of the year, MMCI teachers scored significantly higher on Emotional Support ($p < .001$) and Instructional Support ($p < .05$) than teachers in the control group. On Classroom Organization the two groups were similar ($p < .10$). MTP teachers scored higher on Emotional Support ($p < .05$) than teachers in the control group at the end of the year. No improvement was seen among MTP teachers on Classroom Organization ($p > .10$) or Instructional Support ($p > .10$) relative to teachers in the control group. There were no statistically significant differences between MMCI and MTP teachers in any of the three domains (all $p > .10$).

Improvements in teacher-child interactions resulting from participation in MMCI and MTP, as measured by the *CLASS*, were small in size. Effect sizes for the statistically significant findings ranged from .22 for the effect of MTP on Emotional Support to .36 for the effect of MMCI on Emotional Support. As a reference, researchers often consider an effect size of .20 as *small*, an effect size of .50 as *moderate*, and an effect size of .80 as *large* (Cohen, 1992).

Did MTP or MMCI Lead to High-Quality Interactions?

Another way to think about the effects of these professional development models is to consider the proportion of teachers who reached a level of quality that we expect to improve children's outcomes. A recent evaluation found that participating in Georgia's Pre-K benefited children (Peisner-Feinberg et al., 2014), but it is possible that improved teacher-child interaction could increase those benefits. Some past research using a precursor to the current *CLASS* tool concluded that an Emotional Support score of 5.00

or more and an Instructional Support score of 3.25 or more is needed for pre-k programs to meaningfully contribute to children's social and academic outcomes (Burchinal, Vandergrift, Pianta, & Mashburn, 2010).

Findings from the current study indicate that after the year of professional development, 34% of MMCI teachers, 30% of MTP teachers, and 23% of control teachers attained a 5.00 or higher on Emotional Support and a 3.25 or higher on Instructional Support. Statistical analyses that accounted for teachers' pretest scores indicated that MMCI significantly increased a teacher's odds of attaining this level of quality as compared to the control group, but MTP did not. Importantly, in all three groups, only a minority of teachers reached that threshold. Thus, the gains produced by the interventions were not at the level needed for pre-k programs to optimize children's outcomes.

Did Teachers' Knowledge of Effective Teacher-Child Interactions Change?

As described in the Method section, sometimes knowledge changes before practice (Hamre et al., 2012), so we were interested in learning if MMCI or MTP changed teachers' knowledge of effective teacher-child interactions. To measure teachers' knowledge, teachers were asked to identify one best answer for each of nine classroom scenarios. Teachers' scores reflected the number they correctly answered. This evaluation question was answered using statistical analyses similar to those presented above for the *CLASS*. See the Technical Appendix for details about the analysis strategies.

Findings indicated that MMCI teachers' posttest knowledge of effective teacher-child interactions was significantly greater than that of either control ($p < .05$) or MTP ($p < .05$) teachers. There was no difference between MTP and control teachers on this measure ($p > .10$).

Did the Groups Vary in How They Viewed the Professional Development?

At the end of their participation in the study, teachers in all three professional development groups answered nine questions regarding their perceptions of the value of the professional development, using five-point scales where higher scores indicated more positive perceptions. The nine items were averaged together to create a *Perceived Value of the Professional Development* score. Statistical analyses were conducted to compare the different groups' scores on that scale, following the same strategy used to compare teachers' *Knowledge of Effective Teacher-Child Interactions*.

Findings indicated that both MMCI and MTP teachers perceived their professional development as more

valuable than did control teachers ($p < .001$ for both groups). There was no difference between MMCI and MTP teachers on this measure ($p > .10$).

Five additional questions were asked only of the teachers in the MMCI and MTP groups. Those questions were about the teachers' perceptions of the coach/instructor and the teachers' relationship with the coaches/instructors. Teachers in the control group did not necessarily have a coach or instructor, so those questions were not asked of control-group teachers. The five items were averaged together to create a *Relationship with the Coach/Instructor* score and statistical analyses were conducted to compare MMCI and MTP teachers on that score. Both groups rated their relationship with their coach/instructor quite high (see Table 3 for means); however, MTP teachers had more positive perception of their coach/instructor and their relationship than did MMCI teachers ($p < .001$).

Did MMCI or MTP Benefit Some Teachers More Than Others?

One goal of this study was to find out what types of teachers and conditions were associated with the greatest benefits from the professional development models. To answer this question, a number of teacher, classroom, site, and coach/instructor characteristics were considered. It is important to note that these analyses are *correlational*, meaning that it is not possible to know if the characteristics tested caused change or if they are simply related due to some other factor. The characteristics tested were:

- Teacher's years of experience as a Georgia's Pre-K teacher
- Teacher's years of education
- Teacher's *Adult-Centered Beliefs*
- Class size
- Child-to-adult ratio
- Proportion of children in the classroom whose family reported receiving public assistance
- Center vs. school
- In vs. outside the metropolitan Atlanta area
- Coach/instructor's *Adult-Centered Beliefs*
- Coach/instructor's *Knowledge of Effective Teacher-Child Interactions*
- Coach/instructor's self-reported *Confidence*
- Coach/instructor's years of experience as Georgia's Pre-K Consultant

Findings indicated that among MMCI teachers, those with fewer years of education demonstrated greater improvement in Emotional Support and Classroom Organization than those with more years of education (both p values $< .05$), and MMCI teachers in the metropolitan Atlanta area showed greater improvement in Instructional Support than those outside metropolitan Atlanta ($p < .05$). Further, MMCI teachers whose instructors had more years of experience as a DECAL consultant had higher Instructional Support posttest scores, after controlling for pretest scores and other instructor characteristics ($p < .05$). Among MTP teachers, those in classes with fewer children per adult demonstrated more improvement in Instructional Support than those with more children per adult ($p < .05$). None of the other links between the professional development models and teacher, class, site, or coach/instructor characteristics were significantly associated with improvements in *CLASS* scores (all p values $> .05$).

How did MMCI Instructors and MTP Coaches View the Interventions?

The semi-structured interviews with instructors and coaches offered some additional insights into the findings. Overall, consultants reported seeing MMCI as more effective than MTP. Consultants noted the group approach, teachers having time to reflect on the videos and discuss strategies, a focus on dimensions of the *CLASS* instrument, and the direct connection of learning activities to classroom experience as especially effective aspects of MMCI. For example, one noted "…the fact that teachers could see other teachers teaching [in the videos] and see the positive things and also maybe the things that needed to be changed or tweaked a little bit." Other factors they saw as working well included working with a partner/coach and the format and pacing of the program. What worked less well was doing the 10 training sessions in only five days, which reduced the opportunities for homework or practice about specific *CLASS* dimensions.

While most consultants reported that MMCI was highly effective, MTP elicited more diverse responses. Those who rated MTP the highest did so because they saw progress in teachers' understanding of how classroom practices connect to children's learning. They liked the one-to-one relationship and focus on teachers' self-reflection on specific behaviors. They also were positive about the organization and structure of MTP, specifically the videotaping, feedback, examples, and flexibility of when to do the work. Others rated MTP lower in terms of effectiveness due to the lack of buy-in and engagement of some teachers. As one said, "Some teachers bought into it, and they were excited. Other teachers felt like they were being punished, and the expectation was too much, and they were merely going through the motions of doing the minimal to get by."

MMCI was seen as easier to deliver than MTP. Consultants noted that MMCI was well-organized and straightforward, with each lesson or session following the same format. They felt comfortable with the information and also liked working with a partner. One instructor summed up why she loved doing MMCI:

I think the sessions are concise enough that you can hold teachers' attention … each session follows the same format. You become familiar with that. I think for teachers it takes some of the intimidation off by having the videos because it's not them we're talking about. It's some other teacher that we're able to talk about. I think that makes them more comfortable in opening up.

Few difficulties were mentioned, but those that were included the amount of time teachers were required to be out of their classrooms in order to participate in the sessions, and scheduling the training. Although consultants noted that the MTP program was straightforward—they knew what they needed to do—they viewed it as more difficult to deliver because of the intensity and time-consuming nature of the steps involved, and the lack of investment by some teachers. One coach indicated that she was of two views: MTP was easy because the coaches were familiar with the *CLASS* tool, but it was difficult when teachers did not want to participate. The issue of time reverberated throughout the MTP interviews, with consultants noting how difficult it was to manage all the tasks on top of their other responsibilities.

Consultants saw changes in themselves and teachers due to participation in MMCI or MTP. For both programs, a majority of consultants said they had increased knowledge of the *CLASS,* had become better observers, and had gained new perspectives about how to interact and communicate with teachers in concrete ways and using a common language. Thirteen of the MTP coaches stated that they witnessed teachers engaging in more conversations and questions with the children, and many mentioned the increase in teachers' knowledge of *CLASS* dimensions and how to implement them. For example, one consultant said, "They really started connecting the dots. Why they do certain things, and why they should do certain things." MMCI instructors were unable to observe teachers in the classroom but believed the program worked to increase teachers' knowledge and awareness of best classroom practices. Regarding their own increased understanding, one instructor stated, "I have noticed that I incorporate a lot of that *CLASS* language into my day-to-day work with teachers and with directors, but I think it helps me to focus on specific things when I'm in a classroom."

As for MMCI, all but one instructor thought the program was worth the investment. These supporters endorsed the model and content of the lessons as well as the face-to-face personal interactions. They believed teachers increased their knowledge and awareness, and that would in turn benefit the children. Aspects they would like to continue include: use of the *CLASS* instrument and language, small group approach, partnering of instructors, monthly training,

and access to videos. One instructor echoed the opinion of most in saying, "I would hope that they would actually implement the MMCI instruction across the state …. This is something that I think would be beneficial to all pre-k teachers across the state." In contrast, only four coaches thought MTP was worth the investment. The other 17 either equivocated or were firm in saying it was not worth the time given the small number of teachers it impacted. Several noted that the program could not be sustained with a large number of teachers, but they did endorse the videotaping and one-to-one feedback as elements they would like to see sustained. One coach expressed this common theme:

Not to say that we didn't learn some wonderful things, and some teachers came away with some great new knowledge and ability to do some things different in their classrooms. But when you're looking at a statewide project -- I mean it took us about the first three months for the consultants to figure out 'Okay. We could never do this statewide.' We just knew how much -- how time intensive it was.

Discussion and Conclusions

MMCI, which used an in-person, cohort model to improve teacher-child interactions, was an effective means of increasing emotional and instructional support in Georgia's Pre-K classrooms, compared with control-group teachers. Further, teachers who took part in MMCI had greater knowledge of effective teacher-child interactions after participation than did their peers in the MTP or control groups and thought their professional development was more valuable than did their peers in the control group. Their relationships with their instructors were positive, but somewhat less positive than those reported by MTP teachers. Interviews with MMCI instructors indicated that they had very positive experiences with the model and thought it was a good fit for the state.

Teacher-child interactions among teachers in the MTP group, which involved one-to-one, remote coaching, also showed improvement. Emotional Support increased as a result of participation. Classroom Organization, Instructional Support, and *Knowledge of Effective Teacher-Child Interactions* did not improve. There were no differences between MTP and MMCI teachers at the end of the study on any of the three CLASS domains. MTP teachers saw their professional development activities as more valuable than control-group teachers, and MTP teachers reported more positive relationships with their coaches than did

MMCI teachers with their instructor. Interviews with MTP coaches suggest that their experiences with the model were more mixed than those of the MMCI instructors, with many feeling that it was too time intensive and not worth the state's investment.

There was some correlational evidence that different groups of teachers benefited more from the professional development models than others. MTP teachers in classrooms with fewer children per adult showed greater improvements in Instructional Support, and MMCI teachers with fewer years of education showed greater improvements in Emotional Support and Classroom Organization. These findings make some intuitive sense. The teaching environment is less stressful when there are more favorable child-to-teacher ratios, and this lower stress may allow the teacher to focus more on improving her interactions. Likewise, the content delivered in MMCI might be more novel for less educated teachers, thereby having a greater influence on their practice. Previous research by Pianta and colleagues (2008), however, has not identified child-to-teacher ratios or teacher education as a factor associated with change in practices.

Strengths of the Study Design
This study has four particular strengths in evaluating the professional development models: teachers were randomly selected for participation, teachers were randomly assigned to a professional development group, professional development activities were led by regular Georgia's Pre-K consultants, and a mixture of quantitative and qualitative methods was used. Most similar studies of professional development strategies, including those by Pianta and colleagues investigating the efficacy of MTP and MMCI, rely on teachers who have elected to participate (Downer et al., 2009; Hamre et al., 2012; Pianta et al., 2008). That type of research tells us about the types of benefits we might see if teachers are invested in changing their practice. The current study is more broadly applicable to large systems such as Georgia's Pre-K because it tells us about the benefits of these models for all teachers, not just those who elect to participate.

The random assignment of teachers to a professional development group is a second strength of the study. Due to the random assignment, we can be confident that the changes we saw were caused by participation in the professional development activities. If teachers had been allowed to select their own professional development model, there might be systematic differences between the groups that led them to choose a particular model and also led them to change (or not) during the course of the year. By randomly assigning teachers to a professional development group, we can

be fairly certain that the only difference between the groups is the professional development they received and that changes are therefore due to that experience.

The fact that the MMCI and MTP supports were provided by Georgia's Pre-K consultants adds to the applicability of these results in real-world settings. Consultants reported that they benefited from participation as well. In past research on these strategies, the coaches and instructors have been Teachstone or university employees who are very experienced in delivering *CLASS*-based professional development. To be cost-effective, feasible, and sustainable, systems that are interested in employing such professional development models on a large scale would need to use their own consultants or technical support staff. This study demonstrates that improvements in teacher-child interactions are possible when program staff deliver a well-defined intervention. Relying on DECAL consultants to deliver the intervention has a further benefit: the consultants can continue to use MMCI and MTP strategies and methods in their regular consulting work after this project.

Finally, this study's mixed methods approach of combining the quantitative data with coach and instructor interviews means that we can quantify the models' benefits and have some insights into the coach and instructor experiences as a means of understanding the pattern of findings.

Study Limitations
As with all research, this study also had some limitations. The single day of observation by a single observer in the fall and spring means that the ratings of teacher-child interactions are not exact. Teacher-child interactions vary from day-to-day, and it is always possible that an observation took place on a particularly good or bad day. Additionally, although the observers were well-trained and monitored, it is impossible for independent observers to be entirely accurate and consistent in their ratings. Likewise, the teacher and consultant questionnaires rely on written, self-reports which may include some error if questions are misunderstood or misread.

It is important to remember that all studies take place within a context, and we cannot know exactly how these findings would or would not generalize to other contexts, like childcare or Head Start. Some characteristics that might differentiate this context from others include: the high education level of Georgia's Pre-K teachers, the low attrition in this study indicating low teacher turnover, and the fact Georgia spent the few years prior to this intervention building knowledge of the *CLASS* among its staff and pre-k teachers statewide.

Conclusions

Georgia's Pre-K teachers benefited from and liked both the MMCI and MTP interventions. This study purposefully sought to test MMCI and MTP as possible ways to improve teacher-child interactions in real-world conditions, such as delivery of the intervention by program staff and randomly selecting teachers rather than asking for volunteers. When compared to teachers in the control group, MMCI resulted in improvements in two domains; MTP resulted in improvements in one domain. Pre-k teachers rated both interventions more favorably than did teachers in the control group.

MMCI is a feasible intervention for large-scale adoption. MMCI requires fewer staff members and less time to implement than MTP, which makes it more feasible and sustainable for large-scale implementation. DECAL put a great deal of effort into implementing both models with a high level of fidelity. That effort resulted in almost all MMCI teachers attending all ten sessions; however, only 56% of MTP teachers completed eight or more cycles of coaching. This difference illustrates the challenges associated with MTP implementation.

The interviews with coaches/instructors provided some insight into this issue. MTP requires a major time commitment on the part of the coach and was seen as difficult to implement with teachers who are not highly committed to the process. While coaches typically reported valuing the MTP experience and believed that their own understanding of high-quality teacher-child interactions had improved, most believed that its widespread implementation in Georgia was not achievable and that its costs (in terms of time, money, and effort) were too great for the benefit. MMCI, on the other hand, was generally viewed by instructors as both practicable and beneficial for teachers.

Additional research is needed to understand better the circumstances under which MMCI and MTP are most likely to support meaningful improvements in teacher-child interactions. The findings from this evaluation add to the literature about the MMCI and MTP interventions (e.g., Downer et al., 2009; Hamre et al., 2012) and provide some data about the factors (e.g., teacher education, ratios) that may influence the effectiveness of the interventions. There are many important questions still to answer about these interventions. For instance, is there a minimum, maximum, or ideal number of MTP cycles that yields the greatest change in teacher practice? This study provides important information about the likely attainable dosage within a large-scale implementation, which was less than the dosage received when MTP was implemented by its developers (Pianta et al., 2014). We need additional work, however, to understand the range of supports teachers and coaches need to ensure that the models are implemented in a way that provides maximum benefit.

Advancements in early childhood professional development are still needed. Using these well-defined, evidence-based professional development models, some statistically significant findings emerged. The improvements, however, were small and instructional support in all three groups remained in the low-to-middle range. Thus, additional work is needed, including refinement of existing models and creation of new approaches to professional development, to best support all pre-k teachers in engaging in high-quality interactions with their students.

References

Burchinal, M., Vandergrift, N., Pianta, R., & Mashburn, A. (2010). Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. *Early Childhood Research Quarterly*, 25, 166–176. doi: 10.1016/j.ecresq.2009.10.004

Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159. doi: 10.1037/0033-2909.112.1.155

Downer, J. T., Kraft-Sayre, M., & Pianta, R. C. (2009). On-going, web-mediated professional development focused on teacher-child interactions: Feasibility of use with early childhood educators. *Early Education & Development,* 20(2), 321–345. doi: 10.1080/10409280802595425

Georgia Department of Education. (n.d.). Georgia's Race to the Top plan. Retrieved from http://www.gadoe.org/race-to-the-top/

Gormley, W. T., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. *Developmental Psychology,* 41, 872-884. doi: 10.1037/0012-1649.41.6.872

Hamre, B. K. & LoCasale-Crouch, J. (2009). *Knowledge of effective teacher-child interactions.* Unpublished measure, University of Virginia.

Hamre, B. K., Pianta, R. C., Burchinal, M., Field, S., LoCasale-Crouch, J. L., Downer, J. T., … Scott-Little, C. (2012). A course on effective teacher-child interactions: Effects on teacher beliefs, knowledge, and observed practice. *American Education Research Journal,* 49(1), 88–123. doi: 10.3102/0002831211434596

Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D. M., Clifford, R. M., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-kindergarten programs. *Early Childhood Research Quarterly*, 23, 27-50. doi: 10.1016/j.ecresq.2007.05.002

LoCasale-Crouch, J. Downer, J. T. & Hamre, B. K. (2009a). *Perceptions of professional development.* Unpublished measure, University of Virginia.

LoCasale-Crouch, J. Downer, J. T. & Hamre, B. K. (2009b). Coach confidence. Unpublished measure, University of Virginia.

Mashburn, A. J., Downer, J. T., Hamre, B. K., Justice, L. M., & Pianta, R. C. (2010). Consultation for teachers and children's language and literacy development during pre-kindergarten. *Applied Developmental Science,* 14(4), 179-196. DOI: 10.1080/10888691.2010.516187

Peisner-Feinberg, E. S., Schaaf, J. M., LaForett, D. R., Hildebrandt, L. M., & Sideris, J. (2014). *Effects of Georgia's Pre-K Program on children's school readiness skills: Findings from the 2012 – 2013 evaluation study.* Chapel Hill: The University of North Carolina, FPG Child Development Institute.

Pianta, R. C., DeCoster, J., Cabell, S., Burchinal M., Hamre, B. K., Downer, J., LoCasale-Crouch, J., Williford, A., & Howes, C. (2014). Dose–response relations between preschool teachers' exposure to components of professional development and increases in quality of their interactions with children. *Early Childhood Research Quarterly*, 29, 499–508. doi: 10.1016/j.ecresq.2014.06.001

Pianta, R. C., La Paro, K. M., & Hamre, B. (2008). *Classroom assessment scoring system* (CLASS): Pre-K version. Baltimore, MD: Paul H. Brookes.

Pianta, R. C., Mashburn A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. *Early Childhood Research Quarterly*, 23, 431-451. doi: 10.1016/j.ecresq.2008.02.001

Pianta, R. C., Howes, C., Burchinal, M., Bryant, D., Clifford, R., Early, D., & Barbarin, O. (2005). Features of pre-kindergarten programs, classrooms, and teachers: Do they predict observed classroom quality and child-teacher interactions? *Applied Developmental Science*, 9(3), 144–159. doi: 10.1207/s1532480xads0903_2

Schaefer, E., & Edgerton, M. (1985). Parental and child correlates of parental modernity. In I. E. Sigel (Ed.), *Parental belief systems* (pp. 121–147). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

CLASS Early Implementer Study

FINAL REPORT

EXECUTIVE SUMMARY

The powerful impact that positive teacher-child interactions have on young children's early literacy skills, cognitive and social development, and general behavior is widely recognized. Consequently, promoting positive teacher-child interactions to improve the quality of early learning programs is at the core of many continuous improvement, professional development, and training efforts at both state and national levels. This increased focus on teacher-child interactions requires that these relationships are measured and that professional development is accompanied by tools to enhance teachers' interactions with young children.

The Classroom Assessment Scoring System (CLASS)[1] is a widely used measure of teacher-child interactions and focuses on three main components of classroom practice–Emotional Support, Classroom Organization, and Instructional Support. Research demonstrates that improved scores on the CLASS are related to improved academic, social, and behavioral outcomes among young children.[2]

Florida's Office of Early Learning (FOEL) is building significant CLASS capacity throughout the state in 2012-2013. To determine how best to inform implementation and build capacity for using the CLASS as a voluntary tool for continuous improvement, FOEL contracted with the University of Florida's Lastinger Center for Learning to conduct a study with the goal of determining what types of supports are most useful and effective for using the CLASS. This Early Implementation Study was designed to test different supports for building CLASS capacity. The study included a baseline assessment, a short professional development intervention, and a post-assessment administered four months following the intervention. A total of 182 teachers from 11 programs in of Florida's 31 early learning coalitions participated.

---

[1] Pianta, R., La Paro, K., & Hamre, B. (2008). *Classroom Assessment Scoring System, PRE-K, Manual*. Brookes Publishing Co., Baltimore, MD.

[2] See for example:

Burchinal, M., Howes, C., Pinata, R., Bryant, D., Early, D., Clifford, R., et al. (2008). Predicting child outcomes at the end of kindergarten from the quality of pre-kindergarten teacher-child interactions and instruction. *Applied Developmental Science, 12*, 140-153.

Downer, J., Lopez, M., Grimm, K., Hamagami, A., & Pianta, R. (2012). Observations of teacher-child interactions in classrooms serving Latinos and dual language learners: Applicability of the Classroom Assessment Scoring System in diverse settings. *Early Childhood Research Quarterly, 27*, 21-32.

Howes, C., Burchinal, M., Pinata, R., Bryant, D., Early, D., Clifford, R., et al. (2008). Reading to learn? Children's pre-academic achievement in pre-kindergarten programs. *Early Childhood Research Quarterly, 23*, 27-50.

Mashburn, A., Pianta, R., Hamre, B., Downer, J., Barbarin, O., Bryant, D., et al. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*, 732-749.

The professional development intervention included a structured, 20-hour training called *Making the Most of Classroom Interactions*, which was developed by Teachstone. This training was supplemented by providing participating teachers with access to the Teachstone Pre-K CLASS video library and individualized technical assistance. Interviews with directors and teachers were also conducted as part of the study.

The study findings indicate that *a short-term investment in professional development for early childhood educators can produce significant improvements on the CLASS*.   The specific findings include:

- There were significant gains on the CLASS post-assessment in all three areas of classroom practice following the professional development intervention. The results suggest that these teachers engaged in higher quality interactions with students, were more effective in responding to children's needs, provided a more effectively run classroom designed to maximize developmentally appropriate instruction, and gave students more useful feedback designed to support and extend their learning.
- Providing teachers with a combination of integrated supports was an effective professional development model. Teachers who received structured training supplemented by either technical assistance or access to video supports or both made significant improvement in all three areas measured by the CLASS. The approach used in the Early Implementation Model study is widely applicable to different types of early childhood programs. There were no differences in the magnitude of post-assessment CLASS score gains by class size, directors' years of experience, or teachers' years of experience.
- Teachers with a high school or equivalent diploma and those with higher levels of education experienced significant gains on the post-assessment CLASS scores. However, teachers with an associate's or bachelor's degree demonstrated greater improvements on the CLASS during the short period of this intervention.

Based on these findings and the collaboration with the early learning coalitions, program directors, and teachers to conduct the Early Implementation Study, the following recommendations are offered to improve implementation of the CLASS state-wide:

1. Ensure MMCI, technical assistance and other professional development supports are designed to meet the needs of all early learning professionals, regardless of education level.
2. Increase incentives for teacher participation in professional development in addition to continuing credit hours
3. Improve communication from top down and bottom up
4. Encourage Teachstone to improve their technological infrastructure
5. Establish guidelines and protocols for the sharing of scores with teachers and ensure these are followed

6. Provide time and training to create uniform and meaningful technical assistance to teachers
7. Modify the Teachstone training schedule to better accommodate teachers' schedules and learning styles.

These study results clearly indicate that quality investments in early learning programs by supporting the use of the CLASS as a tool to focus professional development and support teachers' application of the CLASS strategies in their own classrooms will improve teacher-child interactions and may in turn lead to improved outcomes for young children.

PRE-K EARLY IMPLEMENTATION STUDY:

IDENTIFYING EFFECTIVE STRATEGIES FOR CLASS IMPLEMENTATION AND IMPROVING ADULT-CHILD INTERACTIONS IN FLORIDA

Final Report

List of Tables

List of Figures

Early Implementation Model of the CLASS

INTRODUCTION

Young children's readiness for success when they arrive at school is central to the success of Florida's education system and long team future. A careful analysis of the available tools to support the continuous improvement of early learning programs clearly indicated that the Classroom Assessment Scoring System (CLASS) tools great promise for supporting early learning programs. The CLASS tools focus on adult-child interactions, based on an extensive research base showing positive teacher-child interactions lead to improved academic, social, and behavioral outcomes for young children.[1] There is a strong body of research that shows the link between improved CLASS scores and improved child social, behavioral and academic outcomes.[2] Studies have found that Instructional Supports (e.g., concept development, quality feedback, language modeling) were linked with improvements in children's understanding of pre-reading concepts and applied mathematics skills as well as language skills. Higher levels of emotional supports were associated to positive changes in children's social skills and decreased teacher reports of problem behaviors.[3] The academic gains associated with quality teacher-child interactions can have a positive and lasting effect on young children's educational and social trajectories. [4]

In 2012-2013 Florida's Office of Early Learning (FOEL) is investing in significant capacity building on the Toddler and Pre-K CLASS tools through early learning coalitions and Head Start grantees throughout the state. This study was undertaken in the third and fourth quarter of 2012 to 1) determine baseline Pre-K CLASS scores in a sample of school readiness programs in Florida, 2) examine how best to support voluntary use of the CLASS tools in school readiness programs

---

[1] Mashburn, A., Pianta, R., Hamre, B., Downer, J., Barbarin, O., Bryant, D. et al. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*, 732-749.

[2] Burchinal, M., Howes, C., Pinata, R., Bryant, D., Early, D. Clifford, R. et al. (2008). Predicting child outcomes at the end of kindergarten from the quality of pre-kindergarten teacher-child interactions and instruction. *Applied Developmental Science, 12*, 140-153.
Howes, C. Burchinal, M., Pinata, R., Bryant, D., Early, D., Clifford, R. et al. (2008). Reading to learn? Children's pre-academic achievement in pre-kindergarten programs. *Early Childhood Research Quarterly, 23*, 27-50.

[3] Mashburn, A., Pianta, R., Hamre, B., Downer, J., Barbarin, O., Bryant, D. et al. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*, 732-749.

[4] Burchinal, M., Howes, C., Pinata, R., Bryant, D., Early, D. Clifford, R. et al. (2008). Predicting child outcomes at the end of kindergarten from the quality of pre-kindergarten teacher-child interactions and instruction. *Applied Developmental Science, 12*, 140-153.

and 3) identify what types of professional development and other supports produce a positive impact on teacher-child interactions and early learning programs.

STUDY OVERVIEW

The Early Implementation Study was designed to identify baseline Pre-K CLASS scores and evaluate the impact of support models to inform statewide implementation of professional development and other CLASS supports. The study included a baseline assessment of programs that volunteered to participate, a short professional development intervention, and a post assessment on a sample of participating programs four months following the intervention. Ten of Florida's 31 early learning coalitions participated; these collations represented the full diversity of the state. This report presents the results of the Early Implementation Study and describes ways to best support CLASS tool implementation statewide and the use of CLASS to strengthen early learning programs.

STUDY OBJECTIVES

The primary objective of the study was to examine the impact of training and additional supports on the capacity of participating early childhood programs to improve adult-child interactions as measured by the Pre-K CLASS tools over a four-month period. The following questions guided the study design and its implementation:

1. What are the baseline scores on Pre-CLASS assessments among voluntarily participating centers?
2. With training and other supports, what improvements are evident four months after the initial pre-assessments?
3. Are there any supports that appear to make more of an impact than others on CLASS scores?
4. Are there any program characteristics that appear to be associated with either higher initial CLASS scores or larger score gains after four months of support?

STUDY BACKGROUND

Indicators of Classroom Quality in Early Childhood Settings

Classroom practices are generally described according to three main areas: (1) time spent on academics and engaged in learning situations, (2) teacher-child interactions, and (3) the

classroom environment. [5] To make determinations about classroom quality, these main areas of classroom practice are often viewed relative to the nature of the relationship teachers have with children in their program (Note: the CLASS can also be used in family child care homes to measure adult-child interactions; the use of the word "classroom" is not meant to imply that the tool is limited to center or school-based early childhood programs). There is compelling evidence to suggest that the relationships teachers have with the children in their early learning program are essential to academic progress and social and behavioral development in early childhood. Teachers can influence young children's development by how they relate, interact, support, encourage, and engage them in their own learning and the quality of these interactions can have a lasting impact on children's academic trajectories. These types of teacher-child interactions are the primary mechanism and means through which much of the early learning processes and learning experiences transpire. The types of learning opportunities teachers provide and how effectively instructional time is managed is clearly related to how children experience and engage in their learning.[6] The ways in which teachers respond to individual children's learning progressions, gaps in knowledge, and skill deficits can have a significant impact on children's long-term academic progress. There are a number of studies of state-funded preschool programs providing evidence that the quality of teacher-child interactions are directly related to young children's learning.[7]

Teacher-child relationships are typically characterized by "closeness", and children and teachers who trust and like each other may be more likely to put forth more effort in classroom situations.[8] Studies show that teachers' warmth, caring, responsiveness, and sensitivity to children's needs are positively associated with early reading skill development and student engagement.[9] Well-run early childhood classrooms with established routines, rules, and procedures are associated with improved social skills and decreased problem behaviors. In

---

[5] Connor, C., Son, S., Hindman, A. & Morrison, F. (2005). Teacher qualifications, classroom practices, family characteristics, and preschool experience: Complex effects on first graders' vocabulary and early reading outcomes. *Journal of School Psychology, 43*, 343-375.

[6] Brophy, J. (1986). Teacher influences on student achievement. *American Psychologist*, 41, 1069-1077.

[7] See for example:
Howes, C. Burchinal, M., Pinata, R., Bryant, D., Early, D., Clifford, R. et al. (2008). Reading to learn? Children's pre-academic achievement in pre-kindergarten programs. *Early Childhood Research Quarterly, 23*, 27-50.
Mashburn, A., Pianta, R., Barbarin, O. Bryant, D., Hamre, B., Downer, J. et al. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development*, *79*, 732-749.
Pianta, R., Howes, C., Burchinal, M., Bryant, D., Clifford, R., Early D., et al. (2005). Features of pre-kindergarten programs, classrooms, and teachers: Do they predict observed classroom quality and child-teacher interactions? *Applied Developmental Science, 9*(3), 144-159>

[8] Driscoll, K., & Pianta, R. (2010). Banking time in Head Start: Early efficacy of an intervention designed to promote supportive teacher-child relationships. *Early Education and Development*, 21(1), 38-64.

[9] Pianta, R., LaParo, K., Payne, C., Cox, M., & Bradley, R. (2002). The relationship of kindergarten classroom environment to teacher, family, and school characteristics and child outcomes. *Elementary School Journal, 102*, 225-238.

addition, positive teacher-child interactions such as providing engaging opportunities to learn coupled with informative feedback, have been shown to predict early literacy and language development as well as mathematics skills among young children.[10] There is ample evidence to suggest that focusing attention and targeting professional development toward promoting positive teacher-child interactions can provide young children with improved developmental learning experiences that can have lasting positive effects[11] as well as make great strides to enhance the quality of the care and early education of young children.

Enhancing Classroom Quality: Using the CLASS as a Tool for Improvement

The Classroom Assessment Scoring System (CLASS) is a widely used measure to assess classroom quality with a specific focus on the quality of teacher-child interactions.[12] The CLASS is an evidenced-based observational measure informed by the research on children's development and learning and founded on extensive evidence that teacher-child relationships and interactions are the primary pathways for child developmental growth and learning. The CLASS measures interactions between teachers and children in their early learning program and does not measure instructional materials, curriculum or the physical environment. As noted in the manual, "The CLASS focuses on interactions between teachers and students and what teachers do with the materials they have" (p. 1) and serves as a tool to assess "interactional processes." The nature of interactions and the related constructs have been broadly described as classroom quality.[13] By this definition, classroom quality is multi-dimensional and incorporates emotional, instructional and managerial elements. The CLASS has three domains: Emotional Support, Classroom Organization and Instructional Support. Each of these domains measures specific dimensions; Figure 1 illustrates the three domains and the ten dimensions of the CLASS measure.

---

[10] See for example:

Howes, C., Burchinal, M., Pianta, R. Bryant, D., Early, D., Clifford, R., et al. (2008). Ready to learn? Children's pre-academic achievement in pre-kindergarten programs. *Early Childhood Research Quarterly, 23*, 27-50.

Mashburn, A., Pianta, R., Barbarin, O. Bryant, D., Hamre, B., Downer, J., et al. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*, 732-749

NICHD Early Child Care Research Network (2002). Early child care and children's development prior to school entry: Results from the NICHD Study of Early Child Care. *American Educational Research Journal, 39*, 133-164.

[11] Peisner-Feinberg, S. Curchinal, M. Clifford, R., Culkin, M., Howes, C., Kaga, S., et al. (2001). The relation of preschool child care quality to children's cognitive and social developmental trajectories through second grade. *Child Development, 72*, 1534-1553.

[12] Pianta, R., La Paro, K., & Hamre, B. (2008). *Classroom Assessment Scoring System, PRE-K, Manual*. Brookes Publishing Co., Baltimore, MD.

[13] Mashburn, A., Pianta, R., Barbarin, O. Bryant, D., Hamre, B., Downer, J. et al. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*, 732-749.

Figure 1. CLASS Domains and Dimensions

Emotional Support	Classroom Organization	Instructional Support
•Positive climate •Negative climate •Teacher sensitivity •Regard for student perspectives	•Behavior management •Productivity •Instructional learning formats	•Concept development •Quality of feedback •Language of modeling

- The **Emotional Support** domain includes the specific dimensions of Positive and Negative Climate, Teacher Sensitivity, and Regard for Student Perspectives, and focuses on children's social and emotional functioning and the teacher-student relationship.
- The **Classroom Organization** domain consists of the Behavior Management, Productivity, and Instructional Learning Formats dimensions, concentrates on classroom procedures "related to the organization and management of student's behavior, time, and attention" (manual, p.3). This domain is focused on the belief that children function best when they are on task, busy, and engaged, and measures the teacher's ability to sustain student engagement.
- The **Instructional Support** domain, is comprised of dimensions associated with Concept Development, Quality of Feedback, and Language Modeling, and highlights the "instructional value" (manual, p. 5) of the classroom environment and the teacher's use of instructional methods that promote higher order thinking skills, support children's persistence in learning, and encourage language development.

The CLASS was developed from extensive research on the specific teacher behaviors that positively impact young children's social, academic and related skills.[14] With regard to the Emotional Support domain, there is a strong body of evidence that demonstrates children who are engaged and feel connected to others during their early years are more likely to persist and develop positive social and academic trajectories.[15] Teachers' skills and capacity to support the positive social and emotional function of children in their early learning program is central to developing positive relationships with others. The Classroom Organization domain measures teacher-child interactions related to the classroom processes and procedures related to managing children behavior and the general regulation of the early learning program

---

[14] Pianta, R., La Paro, K., & Hamre, B. (2008). *Classroom Assessment Scoring System, PRE-K, Manual*. Brookes Publishing Co., Baltimore, MD.

[15]Hamre, B. & Pianta, R. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development, 72*(2), 625-638.

environment. Marzano, Marzano, and Pickering (2003) found that supportive teacher-child relationships were the foundation for effective classroom management.[16] Each dimension of the Classroom Organization domain measures aspects of the classroom environment associated with children's learning. For example, effective management and redirection of behavior can contribute to increased time on-task and focus on learning activities. Similarly, clear routines and well-articulated classroom procedures can contribute to effective time-management and use of instructional time. Teachers' abilities to facilitate the use of engaging materials and present inviting learning opportunities can enhance children's motivation and interest in the learning task. The Instructional Support domain is focused on how teachers deliver the curriculum or instruction to support cognitive development and language skill acquisition. The three dimensions comprising the Instructional Support domain target how teachers' interactions promote, facilitate, extend, and encourage the development of children's cognitive skills.

The CLASS is a reliable and valid measure for use in early learning programs to measure teacher-child interactions. Each of the domains comprising the CLASS has been shown to have sufficiently high levels of internal consistency, meaning the structure or framework of the measure is consistent across settings, classrooms, and teachers.[17] Downer, Lopez, Grimm, Hamagami, and Pianta (2012) examined the applicability of the CLASS for Latino and dual language learner (DLL) children.[18] Their study of 2,938 children enrolled in 721 pre-k classrooms from 11 different states found that the three domain CLASS structure was the same for DLL and classrooms comprised largely of Latino children. In other words, this study validated the use of the CLASS for diverse early childhood student populations. In addition, they also found that scores of the three Pre-K CLASS domains were significant predictors of improved school readiness in pre-k classrooms regardless of Latino and DLL status. The study demonstrated the wide-ranging applicability of the CLASS to measure quality teacher-child interactions in diverse classroom settings. The findings of this study are especially relevant to Florida's implementation of the CLASS tools as a means to improve the quality of early childhood care and education.

---

[16] Marzano, R., Marzano, J. & Pickering, D. (2003). *Classroom management that works*. Alexandria, VA: ASCD.

[17] Pianta, R., La Paro, K., & Hamre, B. (2008). *Classroom Assessment Scoring System, PRE-K, Manual*. Brookes Publishing Co., Baltimore, MD. The technical appendix of the CLASS Pre-K manual describes the psychometric properties of the CLASS over multiple administrations and studies. The internal consistency values of the Emotional Support domain scale ranged from .85 to .94 across five studies. Similarly, the ranges for the Classroom Organization and Instructional Support domain scales were .76 to .89 and .79 to .90 respectively. The CLASS also has strong criterion-validity evidence where high scores on the CLASS were associated with related high scores on the Early Childhood Environment Rating Scale, Revised Edition (ECERS-R).

[18] Downer, J., Lopez, M., Grimm, K., Hamagami, A., & Pianta, R. (2012). Observations of teacher-child interactions in classrooms serving Latinos and dual language learners: Applicability of the Classroom Assessment Scoring System in diverse settings. *Early Childhood Research Quarterly, 27*, 21-32.

Given the link between improved CLASS scores and improved child outcomes, the CLASS is used in a variety of capacities. For example, Pianta, LaParo, and Hamre (2008) describe that the CLASS can be used for research as a tool to measure the quality of teacher-child interactions; to meet accountability requirements by using the CLASS as a way to report on direct assessments of the quality of classroom environments; and as a tool for program planning and evaluation to improve classroom quality by focusing improvement and professional development efforts.[19] Many states - such as Arizona, California, Georgia, Minnesota, Virginia, and Washington - use the CLASS to provide professional development and support continuous improvement in family child care and center-based programs. Nationally, the Office of Head Start has identified and recommends the CLASS as an instrument to measure teacher-child interactions.

STUDY METHODOLOGY

The purpose of the Early Implementation Study was to determine baseline CLASS scores and to determine what supports make the greatest impact on early learning programs to inform the provision of supports statewide for early learning programs. Since programs will voluntarily participate in the statewide implementation of the CLASS Because the use of the CLASS will be voluntary by programs when implemented statewide, all participants in this study voluntarily participated. The directors and teachers in the early childhood programs received professional development and access to technical assistance to support their continuous improvement; technical assistance providers also received professional development to build their knowledge of the CLASS tools.

Design and Professional Development Intervention

This study examined how different types of supports were associated with improved CLASS capacity. Figure 2 shows the basic design and general timeline of the study. The study design allowed UF to determine the impact of the intervention on CLASS scores and to isolate the impact of specific types of supports.

---

[19] Pianta, R., La Paro, K., & Hamre, B. (2008). *Classroom Assessment Scoring System, PRE-K, Manual*. Brookes Publishing Co., Baltimore, MD.

Figure 2. Early Intervention Study Design and Timeline

The following timeline describes the activities that occurred for each month of the study.

> May:
> - Teacher recruitment
>
> June:
> - Baseline assessments using the CLASS conducted
>
> July:
> - Assessor training provided to coalition staff and partners to improve their knowledge of the CLASS
>
> August:
> - Selected trainers for each coalition attended a two-day MMCI training in Orlando
> - Intervention begins
>
> September – October:
> - Intervention on-going: MMCI training, technical assistance, and use of the video library
>
> November:
> - Follow up CLASS assessments conducted in a sample of programs
> - Interviews with teachers and directors conducted

Professional Development Intervention

The professional development intervention included three components:

1. **Making the Most of Classroom Interactions (MMCI) professional development training**: MMCI is comprised of 10 two-hour sessions designed to help teachers and

teaching assistants working with children 3-5 years of age improve their interactions with the children in their early learning program. MMCI uses the CLASS framework to identify factors such as positive climate, teacher sensitivity, behavior management and quality feedback, as well as identifies and helps to develop teacher behaviors that foster an improved classroom climate through more positive interactions with children. The MMCI training provides teachers with extensive opportunities to learn in-depth about the three domains and ten dimensions measured by the CLASS (see Figure 1 on page 4), engage in professional discussions, view and respond to observational videos in guided and independent formats, and experience opportunities for individualized practice in their own classrooms. The MMCI program also offers teachers a greater understanding of the classroom environment and supports teachers' development through a coaching model. MMCI uses a "train the trainer" model. This required that each participating coalition identify an individual that would receive the MCCI training and who would then provide the training program to teachers within their coalition.

2. **Access to the video library:** A one-year subscription to the CLASS Video Library was provided to all MMCI participants for further professional development and to support the coaching activities associated with the MMCI program.

3. **Technical assistance** was provided to participating teachers over the course of the study. Individualized technical assistance included classroom observations, targeting areas for improvement, modeling, and providing support to establish effective classroom procedures and routines.

Early Learning Sites and Teacher Participants

Ten early learning coalitions representing the diversity of Florida were asked to participate in the Early Implementation Model. These coalitions represented a range of coalitions from those that had already implemented the CLASS to those that had not yet done anything with the tool but had shown high levels of motivation to use the instrument. The ten participating coalitions included: Alachua, Duval, Flagler/Volusia, Gateway, Miami-Dade, Northwest, Orange, Osceola, Palm Beach, and Southwest. Originally, the Big Bend Coalition participated but could not continue due to budget cuts.

Baseline Pre-K CLASS assessments were conducted on 182 teachers. By design, a sample of these programs received a follow up assessment in November; follow up Pre-K CLASS assessments were completed on 63 teachers. Table 1 shows the coalitions and the number of participating early learning programs and participating teachers for each for the baseline assessments and the follow up assessments.

Table 1. Early Learning Coalitions and Number of Participating Programs and Teachers

Coalition	Programs (N)	Teachers (N)
Alachua	7	13
Duval	3	5
Flagler/Volusia	6	8
Gateway	2	3
Miami	35	54
Northwest	9	9
Orange	9	22
Osceola	4	5
Palm Beach	8	10
Southwest	50	50
*Big Bend (dropped out)	3	3
Total	116	182

Interviews were conducted with a representative sample of 37 program site directors to gather background and descriptive information about the participating programs and teachers. The interviews included questions about the professional experience and background of the site director, descriptive questions about the teaching staff as well as the children enrolled in educational programs offered by the site.

As shown in Table 2, the directors had a variety of experience directing early learning programs ranging between 1 and 36 years. On average they had 11 years of director experience. There were greater differences among the directors when asked about how long they had served as the director of their present site. On average, directors had been at participating sites for 7 years, ranging from less than one to 26 years. The vast majority had at least some college experience, with 35% of those interviewed having earned a bachelors, masters, or doctoral degree. A similar percentage (35%) indicated they had specialized in an education-related field such as early childhood or elementary education. Directors also provided information about the teaching staff at their site, their responses indicate that teachers were ethnically diverse and their primary languages closely mirrored those of the children enrolled.   With regard to programming, the vast majority of the directors indicated that they offered two (40.5%) to three (56.8%) age-level programs. Generally, the class size across the different 3, 4, and 5-year old classes were similar and ranged from a low of 2-8 to a high of 22-25 children enrolled. The average class size was 14-16 children and the median class size ranged from 15-18. Typically, the 5 year old classes tended to have lower numbers of children per class. Sites had a licensed capacity to serve an average of 132.5 children with a minimum of 20 and a maximum of 347. The average monthly enrolled for the participating sites was 102 children, with a minimum of 15 and a maximum of 264. The directors also reported that an average of 47% of their total enrollment is comprised of children receiving school readiness funding, this ranged from a

minimum of 0% to a maximum of 100% of enrollment.[20]   These characteristics indicate the diversity in the types of children served by the participating sites.   In addition, about half of the directors (51.4%) reported that their site participated in one of the local Quality Rating and Improvement System (QRIS) initiatives and had been participating for an average of 3.5 years. The remaining half (48.6%) indicated that their site was not currently participating in a QRIS.

Table 2. Participating Program/Site Characteristics

Characteristics		Director Responses (N=37)
Director Experience	Total number of years (average)	11.1
	Number of years at site (average)	7.1
Director Degree	GED/High School diploma	24.3%
	Associate's degree	27.0%
	Bachelor's degree	27.0%
	Master's degree	8.1%
	Doctorate	8.1%
	Advanced Director Credential	5.4%
Teacher Experience	Average number of years	8.9
Average Class Size	3 year olds	14.3
	4 year olds	15.9
	5 year olds	16.5
Average Weekly Full Rate	3 year olds	138.7
	4 year olds	131.7
	5 year olds	116.5
Child Primary Language	English	86.5%
	Spanish	8.1%
	English, Spanish, Creole	5.4%
Teacher Primary Language	English	83.8%
	Spanish	10.8%
	English, Spanish	2.7%
	English, Spanish, Creole	2.7%
School Readiness Fund	Average percent of enrollment	47.1%
QRIS Participation	Yes	45.9%
	No	51.4%

---

[20] As part of the director interview, they were asked to report on the percent of their total child enrollment that received school readiness funding. Of the 37 interviews, two directors reported that none (0%) of their total enrollment of children received this funding.

The selection of teachers was determined by site directors. Coalitions asked directors to invite teachers of 3, 4 and/or 5 year olds who were eager to learn and open to improving their practice to participate in the Early Implementation Model. A total of 182 teachers agreed to participate at the outset of the study; by design, a sample of 63 teachers was selected for the post-test data to measure the impact of the professional development and other supports. Table 3 shows the descriptive characteristics of the participating teachers that had both pre and post CLASS scores (N = 63).

The final study sample, those teachers with both pre and post assessments on the CLASS, included a diverse group of practitioners. A strong majority of participants were of Hispanic/Latino or White backgrounds. A smaller, but sizable percentage indicated they considered themselves African American (17.5%). A small number of teachers were Asian (1.6%). The number of years participants had in the classroom ranged from one to 35 years with an average of 14 years. Teachers reported working in their current program/site less than one year to over 21 years, with an average of approximately six years. Participating teachers represented a variety of education levels, with about half earning a high school diploma or an equivalent degree and the other half earning a 2-year associate's or bachelor's degree. Of those reporting earning an associate's or bachelor's degree, the majority specialized in child development or an early childhood related field. In addition, 48.2% reported having a CDA credential and almost 10% had a Director's Credential. Also, about one-fourth indicated that they were members of early childhood professional associations.

With regard to their specific classrooms, teachers reported having an average of 14 children in their rooms. This number ranged among participants from 5 to 22 children. The children also represented a diverse student population. A total of 27.6% of the children were African American, 21.9% were Hispanic/Latino, 41.3% were White, 6.6% were Other and 2.4% did not report ethnicity.

Table 3. Teacher Participant and Child Demographic Characteristics

Characteristics		Study Sample (N=63)
Gender	Male	1.6%
	Female	98.4%
Ethnicity	Asian	1.6%
	African American	17.5%
	Hispanic/Latino	41.3%
	White	39.7%
Teaching Experience	Total number of years (average)	14.3
	Number of years at site (average)	6.5
Degree	Pre-GED	2.1%
	GED	4.2%
	High School	45.8%
	Associate's degree	29.2%
	Bachelor's degree	18.8%
Major/Area of Specialization[1]	Child Development	18.8%
	Early Childhood	8.4%
	Elementary Education	8.4%
	Other	8.4%
Class Size	Average	13.9
Class Demographics		
Gender	Male	47.9%
	Female	52.1%
Ethnicity	African American	27.6%
	Hispanic/Latino	21.9%
	White	41.3%
	Other	6.7%
	Ethnicity Unreported	2.4%

1. Note: The percentages for major/area of specialization do not total 100. This question was asked of those who had received at least a 2-year associate's degree. The percentages represent the percentage out of the total teacher sample.

CLASS Administration

As noted earlier, the CLASS is an observational measure and requires that observers or assessors are trained and reliable to ensure that CLASS scores maintain their meaning when multiple observers implement the CLASS assessment tool. Trained observers scored each of the dimensions using a seven-point scale that includes three categories – low (1, 2), mid (3, 4, 5), and high (6, 7). Four observation cycles were completed for each participating teachers and dimension scores were averaged across the cycles to compute domain scores. Prior to

conducting CLASS observations, all assessors had to have documentation of Level II background check screening and current certification as a reliable Pre-K CLASS Assessor. The UF assessment team consisted of six assessors located in various geographic regions within the state. Assessors were selected based upon recommendation to the project manager by various organizations and possessing the proper documentation as required by OEL to conduct the assessments (Level II background screening and CLASS reliability certification). Assessors conducted four cycles of the CLASS; the majority of the cycles were the full 20 minutes, but some were shortened to accommodate teachers' schedules.

Prior to the baseline CLASS assessments, the participating coalitions provided UF with a list of teachers to be assessed using the CLASS. While most of the pre-assessments were completed during June, a week's extension was granted to the Big Bend and Gateway sites due to the inaccessibility of sites as a result of Tropical Storm Debbie. Pre-assessment scores on the CLASS were sent to coalition directors and/or support staff to share with the teachers prior to receiving the MMCI training. All post assessments were conducted in November 2012.

Limitations

It is important to recognize a few limitations of the Early Implementation Study. The primary limitations are associated with the professional development supports provided to the participating teachers. While anecdotal evidence of the impact of the video library was shared in the interviews, it was not possible to incorporate the frequency of teachers' use of the video library. Teachstone, the MMCI provider, does not have a mechanism in place to record when teachers logged on to the library and for how long. Consequently, it was only possible to determine if access to the video library had an impact on teachers' CLASS results, but the extent to which the video library was used could not be measured to determine if the amount of use impacted CLASS scores. Furthermore, several directors noted their teachers had difficulty logging onto the Teachstone site to view the video library, limiting their ability to build upon the MMCI training they received and/or hone in on a particular dimension on which they wanted further help. Similarly, *t*he technical assistance that was offered to the participating teachers ranged in length and intensity. Some teachers were provided minimal assistance while others received intensive technical support. When asked why teachers did not receive more technical assistance, the majority of coalitions responded that there was a lack of staff with which to do so. The majority of the coalitions were facing severe to moderate budget cuts during the time of the study, reducing the resources that could have been utilized to provide additional technical support. Other initiatives, to include accreditation reviews and other child or program assessments further reduced the resources to provide additional technical support.

Another limitation to this study was the timeline in which the project needed to be launched and completed. Due to the contract between OEL and UF having to be reconfigured, time was

lost in waiting for contract approvals. Participating sites and teachers reported communication challenges around which teachers should be selected to be included in the study, when the trainings needed to be completed, and the challenge of the MMCI training happening at the same time as the beginning of the school year. Seven of the ten coalitions began their trainings in August with the remaining three started in September; five coalitions completed their trainings in September, followed by three coalitions completing their training in October with the final two coalitions simultaneously completing their training while UF was post-assessing. Ideally, the study procedures would have allowed sites to begin at point that was conducive to their schedules and allowed adequate time for the various interventions to take effect.

An additional limitation is the training schedule established by Teachstone, which suggests 10 sessions at 2 hours in length each. Establishing training schedules was often difficult given the demands of individual sites on teachers and locations of the training sites.   Three coalitions provided sessions in 4-hour blocks for 5 sessions to accommodate the schedules of the teachers. However, some coalitions expressed difficulty in keeping teachers enrolled in the suggested 20 hours and had several teachers drop from the training due to being unable to commit for this amount of time.

Finally, it is important to note that all of the participants in this study were asked to participate by their local coalitions and voluntarily participated. As such, these scores may be higher than if a statewide, randomly selected sample was conducted.

RESULTS

Initial Measures of Classroom Environment

One of the study objectives was to assess where participating early learning programs were on the CLASS to identify a "starting point" or baseline to measure progress. As described previously the initial sample included 179 teachers. CLASS scores for the initial group were similar to those nationally, putting Florida (as represented by the study sample) on par with national trends. The pre-CLASS scores for the initial sample included the following domain scores:

Emotional Support = 5.86 (high mid/moderate range)

Classroom Organization = 5.26 (mid/moderate range)

Instructional Support = 2.33 (low range)

The results of the initial CLASS assessments are consistent with national data. According to Hamre, Goffin, and Kraft-Sayre (2009), "the domains of Emotional Support and Classroom Organization typically are at moderate to high levels of quality" in early childhood education

(ECE) classrooms. Instructional Support, however, is "typically at a low level of quality" (p. 16).[21] The national data for the CLASS is reported using a distribution of scores, as such it is not possible to make direct comparisons of the national average scores on the three CLASS domains and the baseline results of Early Implementation Study. It is important to note that the baseline means for this study indicate that the participating teachers' CLASS scores are similar to the national data.

Overall Impact of Training and Supports

The pre and post CLASS scores were compared and showed that there were statistically significant gains[22] in participating teachers' scores following the MMCI training and other supports. As shown in Figure 3, prior to the training teachers' scores on the Emotional Support and Classroom Organization domains were in the "mid/moderate" range and on the Instructional Support domain were in the "low" range. Following the training the domain scores significantly increased in all three domain areas and moved from the "mid" to "high" range for Emotional Support and from the "low" to "mid" range for Instructional Support. Even though the range category did not change from pre to post test for Classroom Organization, the score gain was still substantial and statistically significant, indicating that participation in the MMCI training and other supports had a positive, statistically significant impact on teacher-child interactions, the quality of the classroom atmosphere and context of the participating ECE teachers.

Figure 3. Pre and Post CLASS Domain Scores

---
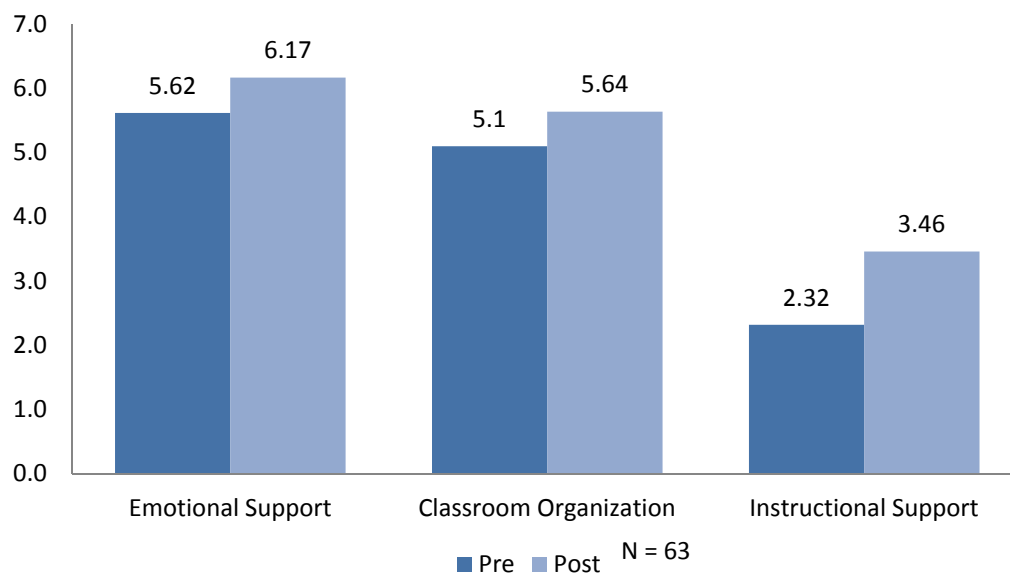
[21] Hamre, B., Goffin, S., & Kraft-Sayre, M. (2009). Classroom Assessment Scoring System (CLASS) Implementation Guide: Measuring and Improving Classroom Interactions in Early Childhood Settings.
[22] The results of one-way Analyses of Variance (ANOVA) indicated that there were statistically significant gains at posttest on each of the three CLASS domains at $p < .001$.

Targeted Supports for Improving the Classroom Environment

As described, the intervention included three types of supports for developing capacity for implementing the CLASS. The primary support was the MMCI training. Participating teachers had the option to supplement this training by accessing the video library and taking advantage of individualized technical assistance. The structure or format of the MMCI training was different across the 10 participating coalitions. Some coalitions provided the training over 9 to 10 sessions for 2-3 hours per session, while others had fewer meeting times, but spent more time training per session. For example, one coalition held 4 MMCI training sessions on a series of Saturdays for a period of 5 hours each. While the structure of the training sessions varied, most were organized to provide the target 20 hours of training. Participating teachers spent an average of 13.8 hours in MMCI training and the number of hours varied by coalition. This number may be lower than the 20 required hours, because some teachers were not able to attend all of the training sessions. Since it was not possible to capture how much time teachers spent using the video library resource or the frequency with which they accessed the library, CLASS scores were examined according to teachers' reports of using the library or not. The majority of teachers (n=47) reported accessing and using the video library resources.   By comparison, all teachers (n=63) reported receiving the technical assistance option. There is some overlap between these categories as teachers may have received multiple supports. On average, teachers received 3.3 hours of technical assistance. The number of technical assistance varied by coalition; in some cases teachers reported receiving about 12 hours of technical assistance compared to others who reported receiving 1-2 hours of assistance. To determine the impact of each type of support on changes in CLASS scores analyses were conducted to examine the score gains associated with MMCI, access to the video library, and the receipt of technical assistance.   Figures 4-6 show these results and the different numbers of teachers who reported receiving each type.

Figure 4. Pre and Post *Emotional Support* CLASS Domain Scores by Type of Support
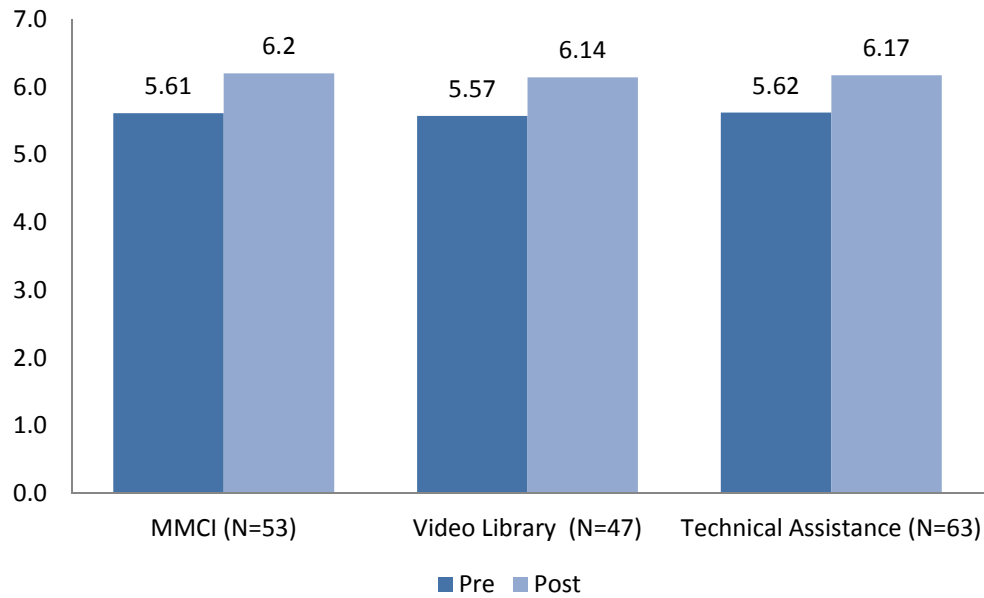
Figure 5. Pre and Post *Classroom Organization* CLASS Domain Scores by Type of Support
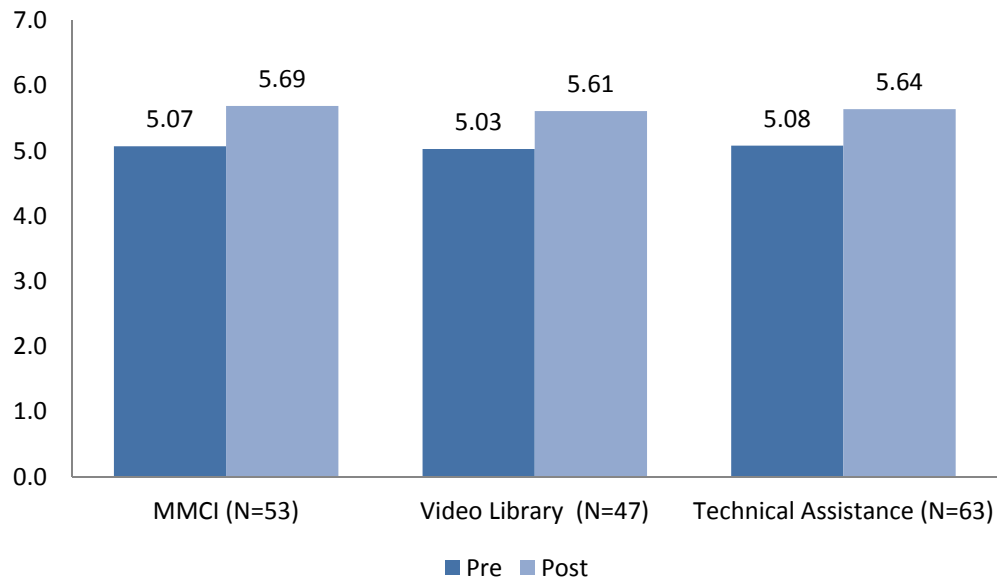
Figure 6. Pre and Post *Instructional Support* CLASS Domain Scores by Type of Support
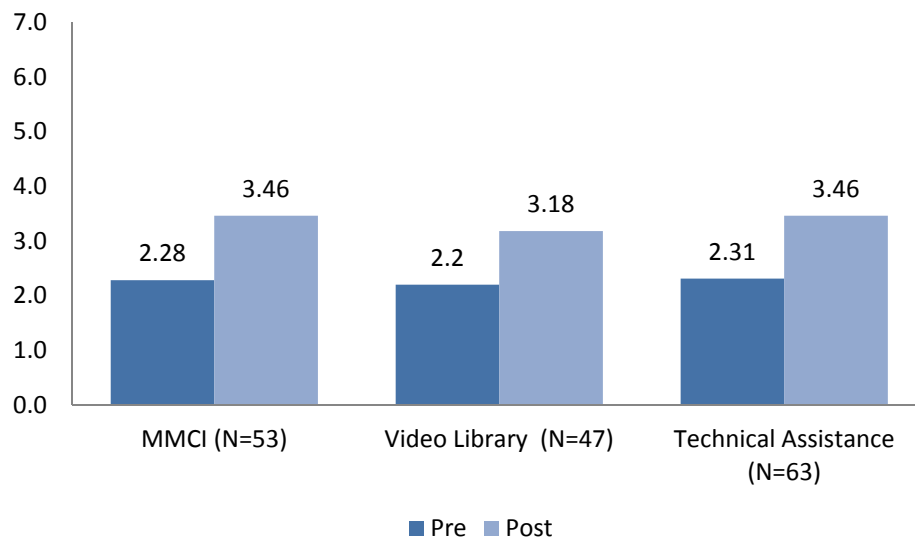
Figures 4-6 show the improvement on the CLASS domain scores according to each type of support. The baseline and posttest CLASS scores were compared to determine if the type of support teachers reported receiving contributed to statistically significant improvements on the CLASS.[23] For each CLASS domain – Emotional Support, Classroom Organization, and Instructional Support the domain score at posttest was significantly larger than the baseline score measured prior to the intervention. This pattern is consistent for three types of supports for each domain area. For example, Figure 6 shows the increases on the Instructional Support domain by type of support. The posttest score for teachers who received MMCI was 3.46 compared to a baseline score of 2.28. Statistical analyses indicated that this increase in the Instructional Support domain score was statistically significant; in other words, the improvement was not a result of chance or an arbitrary increase. This is true for all of the gains shown in Figures 4 through 6, suggesting that the intervention had a meaningful impact on teachers' CLASS scores.

The specific gains made on each domain are presented in Table 4. The positive change in the scores after the implementation of the intervention was significant for all three types of support on each of the three domain areas.[24] Gain scores, around or approaching 1, indicate a possible shift or substantial movement towards a higher reporting category. As shown, the greatest improvement was evident in the Instructional Support area; suggesting that as a result of the intervention, the instructional value of participating teachers' classroom was enhanced

---

[23] Paired-samples one-way ANOVA was conducted to determine if posttest scores were significantly different from those at pretest by type of support and CLASS domain scores.
[24] Three one-sample ANOVAs were conducted for each type of support to determine if pre and post CLASS domain scores were significantly different. Results were statistically significant for all three statistical tests at $p < .01$.

and that they were more likely to interact with children in ways that supported their learning. These results indicate that even a short intervention with targeted supports for using the CLASS can result in improved levels of Emotional Support, Classroom Organization, and Instructional Support indicative of higher quality teacher-child interactions.

Table 4. Average Gain on CLASS Domain Scores by Type of Support

Type of Support	CLASS Domains		
	Emotional Support	Classroom Organization	Instructional Support
MMCI	.597	.617	1.18
Video Library	.566	.582	.979
Technical Assistance	.554	.555	1.14

The CLASS results were also analyzed to determine if the number of MMCI training hours or the number of technical assistance hours were associated with greater improvements in CLASS scores. The results indicated that there were not any strong associations between the number of hours teachers reported receiving MMCI training and or the number of hours of technical assistance hours and CLASS score gains.[25] These results may suggest that the combination of supports may be more essential than the amount of time spent on MMCI or technical assistance. Given that this was a pilot study, further research is warranted to determine the impact of the amount of time spent on training and technical assistance and score gains. The present study demonstrates that targeted professional development can positively impact CLASS scores but does not allow for more nuanced analyses or conclusions.

One of the limitations of the preceding analysis is that is the isolated impact of the training components is somewhat artificial because teachers generally received the supports in combination, so it is not possible to detect a "true" impact of each type of support independent from the other.   As such, it was important to determine if any combinations of support had more or less of an impact on CLASS post-intervention scores. This type of information could be used to inform decisions about how best to encourage teachers and ECE programs to invest time and resources for building CLASS capacity. As noted previously, all teachers reported taking advantage of the technical assistance (TA) resource. Consequently, four different combinations of the three available supports were used by participating teachers: (1) MMCI and TA; (2) MMCI, Video Library, TA; (3) Video Library and TA; (4) TA only. Only one teacher

---

[25]Bivariate correlations were computed to determine if there were significant correlations between the number of hours teachers received MMCI training or technical assistance and the pre-posttest difference scores on each of the three CLASS domains. The results indicated that there were not any statistically significant correlations at $p = .05$.

reported using only the video library and technical assistance resources, as such the results for this support combination are not included in the reporting of results or the analysis. Figure 7 shows the pre-post CLASS assessments difference scores on each of the three CLASS domains by the type of support combinations teachers received.

*Figure 7.* Average Gain on CLASS Domain Scores by Combination of Support
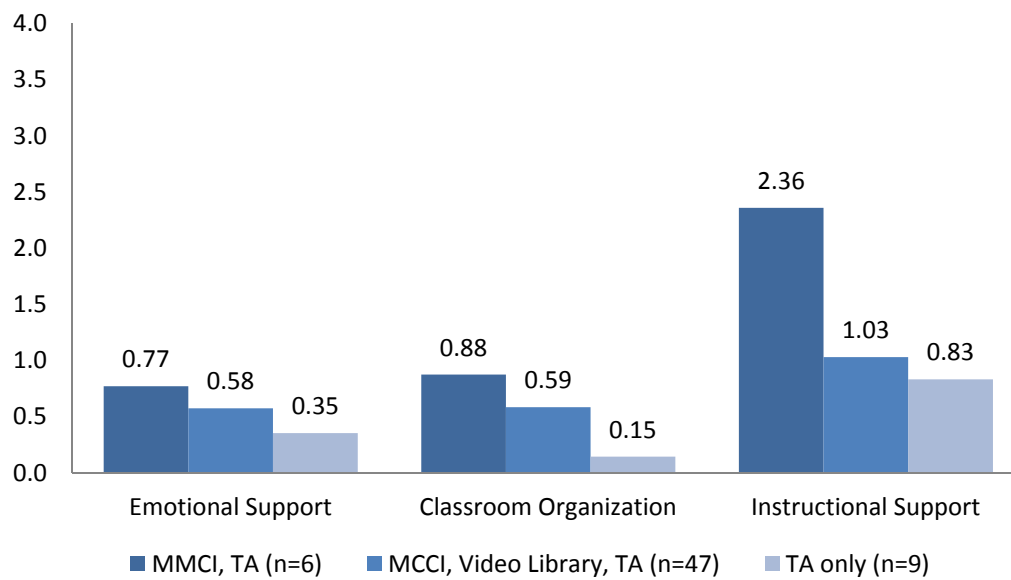
Teachers who received MMCI and technical assistance in addition to those who received MMCI training that was supplemented by accessing the video library and receiving technical assistance made significant improvement at post-test on the CLASS tool in all three areas: Emotional Support, Classroom Organization and Instructional Support.[26] Teachers who experienced technical assistance only did not show any significant improvement on the post-assessments; this result may be due in part to the small number of teachers in this group. Similar to previously reported results, the greatest improvements were made in the area of Instructional Support. The CLASS scores were also analyzed to determine if any of the different combinations of supports were more effective than the other. The analyses indicated that there were no differences in the degree of improvement teachers made in the area of Emotional Support and Classroom Organization; regardless of the support combination involving MMCI all teachers made significant gains at posttest in these areas. However, teachers who received MMCI and technical assistance had a greater degree of on the Instructional Support domain compared to those that received all three types of supports and

---

[26] Paired-dependent samples t-tests were conducted to determine if there were statistically significant differences at posttest for each of the three support combination groups. Results indicated that the posttest CLASS domains scores were significantly higher than pretest scores for the MMCI and TA as well as the MMCI, Video Library, TA groups at $p < .05$.

those that only received technical assistance.[27] To explore these results further, it was important to see if the greater gains evident for the MMCI and TA support group were due to teachers receiving more hours of technical assistance. The average number of technical assistance hours for the MMCI and TA; MMCI, Video Library, TA; and TA only groups were 3.0, 2.7, and 7.2 hours respectively. It follows, that those teachers who received only technical assistance would have spent more hours using this support. The number of technical assistance hours received by teachers in the MMCI and TA group and the MMCI, Video Library, TA group were similar. As such, this suggests that the different rates of improvement in the Instructional Support area are not associated with the number of technical assistance hours. Figure 8 illustrates the significant improvement for all three support combinations on Instructional Support scores and shows the greater rate of improvement for the teachers who received MMCI training supplemented by individualized technical assistance. These results should be interpreted with caution due to the differences in the number of teachers for each group. Smaller sample sizes may show more dramatic score changes than groups with larger numbers, because some of the individual pre and post differences within the larger group may effectively cancel each other out.

Figure 8. Pre and Post *Instructional Support* CLASS Domain Scores by Combination of Support

---
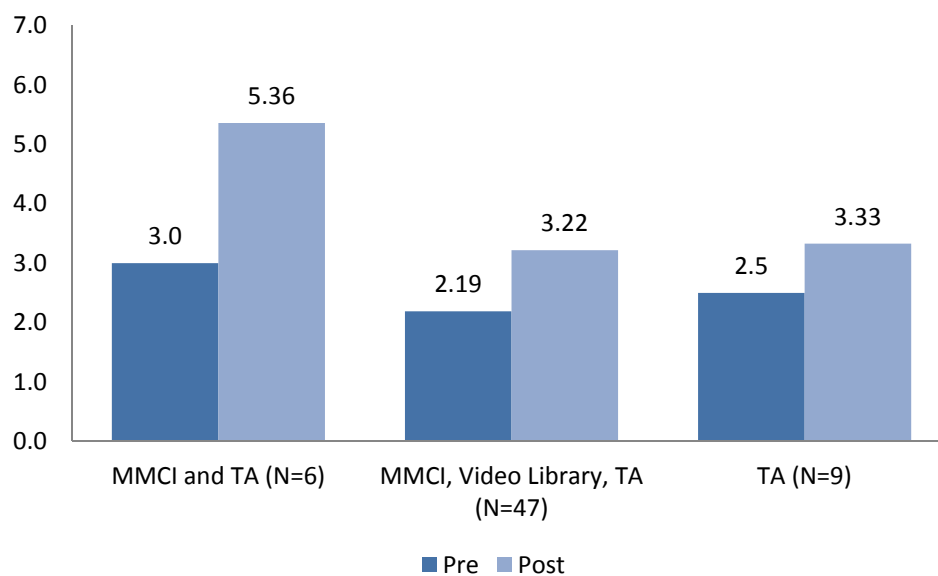
[27] An ANOVA was conducted to determine if there were differences on the pre and post difference scores on the three CLASS domains by the combination of support. The results were statistically significant for the Instructional Support domain at $p = .023$. These results indicated that there were statistically significant between-subjects effects by the combination of support. It is important to note that these results are limited by the difference in the cell sizes of the three support combinations.

Essential Program Characteristics for Enhanced Classroom Environments

The results of the pre and post CLASS assessment were analyzed to determine if there were any contextual characteristics of the different programs that were associated with larger improvements on the CLASS scores. The results are shown in Table 5. The demographic and program characteristics that were described earlier in the report (see Tables 2 and 3) were combined in several instances to create comparison groups of similar sizes to provide for more meaningful interpretations of the results. As shown, the results for Emotional Support, Classroom Organization, and Instructional Support were similar for class sizes less than 14 and those classrooms with 14 or more children enrolled. Similarly, there were no differences on the CLASS scores by the number of years of experience for program directors or teachers. Program participation in a QRIS also did not produce different rates of improvement on the CLASS domain scores. Across all of these areas, improvements in post-CLASS scores were evident following the intervention. The one area that did seem to influence the degree of improvement was teachers' education level. The teacher education categories (see Table 3) were combined to create two groups; one of High School education or less and the other group having a 2-year associate's degree or a bachelor's degree. As shown in Table 5, teachers with higher education levels made greater gains or improvement at posttest on the CLASS. Even though the CLASS scores for both groups of teachers improved, those with higher education levels made larger improvements than teachers with a high school or equivalent degree.[28] This finding from the brief intervention study suggests that teachers with stronger education backgrounds may be better positioned to apply the concepts of the CLASS framework and use pre-test scores to inform their instruction and shape interactions with children. Figure 9 shows the pre-post difference scores or gain scores that show the improvement teachers made on the CLASS assessment after the intervention. As shown in the figure, both groups improved but teachers who had earned either an associate's or bachelor's degree made greater gains.

---

[28] A one-way ANOVA was conducted to determine if there were statistically significant differences on the three CLASS pre-post difference scores by teacher education level. Results indicated that there were statistically significant between group effects at $p < .05$ for Emotional Support and Classroom Organization and $p < .01$ for Instructional Support.

Table 5. Pre and Post CLASS Domain Scores by Program Characteristics

Program Characteristics		N	Emotional Support		Classroom Organization		Instructional Support	
			Pre	Post	Pre	Post	Pre	Post
Class Size	< 14	22	5.63	6.31	5.15	5.82	2.49	3.87
	>= 14	28	5.57	5.93	5.09	5.42	2.20	3.42
QRIS Participation	No	23	5.06	6.25	4.29	5.37	2.46	4.63
	Yes	28	5.53	6.14	4.69	5.82	2.44	3.82
Director Years of Experience	< 10 years	28	5.47	6.10	4.75	5.62	2.44	3.54
	>= 10 years	25	5.70	6.12	5.38	5.64	2.22	3.53
Teacher Years of Experience	< 10 years	20	5.52	5.96	4.81	5.46	2.37	3.66
	>= 10 years	28	5.70	6.23	5.40	5.73	2.39	3.68
Teacher Education	High School/GED	25	5.69	5.95	5.25	5.35	2.21	3.02
	Associate's/BA	23	5.55	6.29*	5.05	5.91*	2.57	4.39*

*Statistically significant differences on pre-post difference score at *p* = .05.

Figure 9. Average Gain on CLASS Domain Scores by Teacher Education Level

■ High School Diploma   ■ Associate/Bachelor Degree
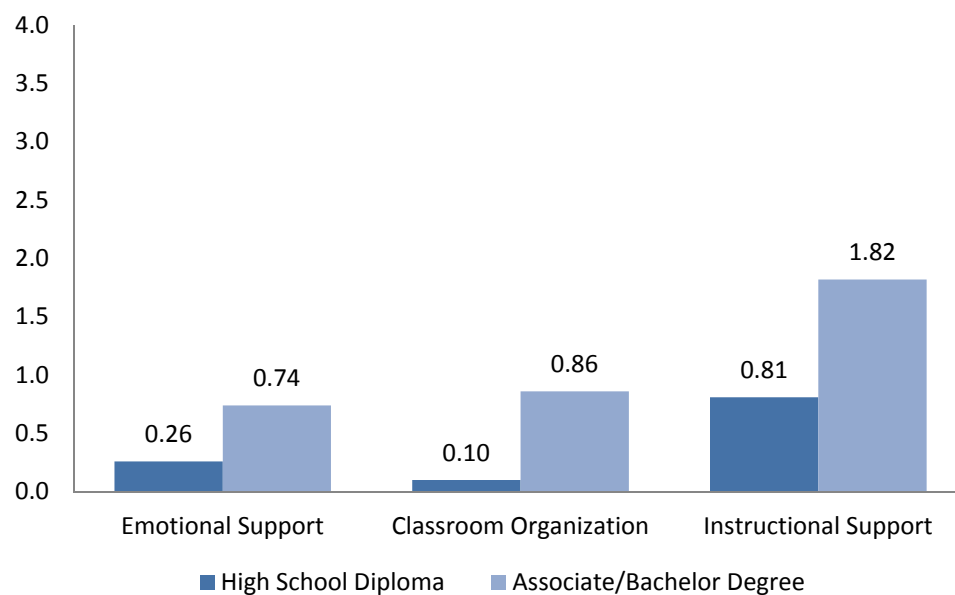
Summary

The results of the Early Implementation Study clearly demonstrate the promise of providing early care and education teachers with targeted professional development and supports to improve teacher-child interactions. The results show impressive differences between pre and post-intervention CLASS scores. Teachers' scores on all three domains of the CLASS – Emotional

Support, Classroom Organization, and Instructional Support – significantly improved following the professional development. Further, the results suggest that structured training (i.e., MMCI) coupled with additional supports, particularly individualized technical assistance, promoted the largest improvement in CLASS scores. In addition, program characteristics and teacher characteristics, other than teacher educational level, were not strongly associated with increased CLASS post-assessment scores. Consequently, these results suggest that this targeted approach to professional development is broadly applicable to a variety of different early care and education programs and has the potential to produce widespread positive results. *The gains in CLASS scores that resulted from the short intervention are impressive and clearly show the promise of a long-term and sustained approach to professional development to positively impact teacher-child interactions and child outcomes.*

RECOMMENDATIONS

Based on the implementation and findings of the Early Implementation Study as well as our experiences working with the coalitions, program directors, and teachers on this project, UF offers the following recommendations to inform how the CLASS is used statewide:

1. **Ensure MMCI, technical assistance and other professional development supports are designed to meet the needs of all early learning professionals, regardless of education level**. The results of this short intervention show the greatest gains among teachers with more formal education. Careful planning and attention needs to be brought to how to best implement MMCI, technical assistance, and other supports to ensure all early childhood professionals, regardless of education level, have the knowledge and skills needed to improve their interactions with young children.

2. **Increase incentives for teacher participation in professional development in addition to continuing credit hours**. Although many of the teachers expressed appreciation for CEUs, many had already earned their required 10 clock hours, thus it was not viewed as an incentive. The majority of the teachers did not receive incentives for participating in the MMCI training, which was particularly challenging since the locations of the trainings were often far from work sites, requiring teachers to provide their own transportation and pay for their own fuel. Funding to provide incentives for teachers' time and to offset their transportation costs would help teachers tremendously.

3. **Improve communication from top down and bottom up.** It was evident as the UF assessment team called to arrange the pre-assessments of teachers that communication of the project wasn't as clear as it needed to be. Directors often were only told that "UF would be calling them" with minimal to little information about what UF's role was, what would be asked of their teacher, etc. Upon arriving to assess the teachers, teachers often were not even told they were going to be assessed, by whom or for what reason. For coalitions not utilizing the CLASS, many teachers had never heard of the instrument and assumed it was similar to the ECERS assessment tool. Communication seemed to have improved by the time of the post-assessment phase. However, it was discovered during interviews with the coalitions and directors that the communication surrounding the MMCI trainings wasn't clear. Teachers were selected to attend the training who might not otherwise have been chosen, had directors been given more clarification and direction on how to select participants for the pilot. In some cases, selected teachers were not told of the time commitment until the first MMCI training. This lack of information caused some of the teachers to drop out of the study due to personal commitments outside of work. To minimize the confusion and frustration felt by the teachers, directors, and coalitions, face-to-face meetings, conference calls and email exchanges need to occur on a regular basis to ensure all of the information is clearly understood and shared with all involved. FOEL is also encouraged to develop communication templates or related guidance for coalitions to adapt that address the common questions, issues that arise, and suggestions for implementation.

4. **Encourage Teachstone to improve its technological infrastructure.** One of the supports provided to teachers was the CLASS Video Library. At the launch of the study, Teachstone did not have the ability to track when viewers logged on and off, how long their viewing time was, which dimension/video was viewed the most, etc. At the time of this final report, Teachstone did not have the capability to provide this information, even though the technology to document usage is widely used by similar companies. Many of the teachers and directors expressed how helpful the library was in helping them to see how to score well on a particular dimension by viewing an actual classroom situation surrounding that dimension. It would have been extremely helpful to access information on how much the library was utilized for this report and, in cases where substantial growth was seen, whether viewing time was high for a particular dimension. Given wide use of CLASS, this data would also help inform the multitude of research projects using the CLASS. On a related note, some teachers expressed frustration with the slow response time of Teachstone when they had difficulties logging on to the site and called for technical assistance. Four teachers in the study were never able to access the library even after numerous attempts and calls for

assistance; several others voiced difficulty logging on to the site after being "kicked off" several times. Discussions are recommended with Teachstone to make them aware of how breakdowns occurred within their system and to emphasize the priority in integrating the technology needed to record and track viewers accessing the site.

5. **Establish guidelines and protocols for the sharing of scores with teachers and ensure they are followed.** Originally, this study did not include the sharing of scores with teachers as it was established as a research study. After much deliberation, it was decided that scores would be shared by the coalitions to the teachers so they would know what areas they needed to improve upon. Protocols and supporting documents were sent to each coalition to assist in the sharing of the teachers' scores. During interviews with teachers and directors, it was discovered that scores were not shared uniformly. In some instances, teachers were never provided their scores, some received them via email with no additional information or support and some teachers were only given a range of where their scores fell. Also, some teacher scores were shared <u>after</u> the teachers had gone through the MMCI training. Had they been shared at the beginning of the MMCI training, it would have helped teachers to concentrate on areas needing improvement. If scores are to be utilized as a teaching and guiding tool, mechanisms need to be in place in which to do so. It is understood that each coalition is unique, but some uniformity and continuity needs to be in place when sharing CLASS scores. It is suggested that guidelines and protocols be developed in partnership with the coalitions and then distributed for statewide use. Video clips showing scores being shared with teachers would also be of help in creating consistency as well as providing guidance in how to share scores in different scenarios.

6. **Provide time and training to create uniform and meaningful technical assistance to teachers.** Interviews with coalition training and support staff uncovered a wide range of technical support structures and hours. Some coalitions were limited in how much technical assistance they could provide teachers to help them better understand the CLASS or make improvements within certain domains. To support coalition implementation of technical assistance it is recommended that capacity building related to technical assistance be developed and mechanisms for sharing promising practices across coalitions be implemented. This would help coalitions implement more consistent technical assistance strategies, share and learn from successful models, and utilize approaches proven to be meaningful to programs and make a difference to children.

7. **Modify the Teachstone training schedule to better accommodate teachers' schedules and learning styles.** The recommended delivery of the MMCI training was 10 two-hour sessions. Coalitions had the flexibility to modify the sessions so as to accommodate

teachers' schedules as some conducted five 4-hour sessions and others did a combination of the two. Many of the teachers, directors, and coalition support staff expressed the intensity of the training and noted, "It was a lot to absorb in a short amount of time." We suggest that coalitions and sites collaboratively schedule trainings to better accommodate the schedules of the teachers while keeping in mind how to optimize their learning capabilities after putting in a full day's work. Although Teachstone suggests all of the sessions occur closely together, it might be wise to rethink how to deliver the trainings. One teacher suggested having 2-3 week breaks in between each domain session allowing teachers to not only better absorb what they learned, but to also enact what they learned. Another suggestion was to start with the domains that most teachers struggle with: Instructional Support and Classroom Organization and place the Emotional Support sessions at the end. It would be helpful for OEL to reassess how to best deliver the trainings so more teachers could fully participate and reap the benefits of the training provided.

CONCLUSIONS

The results of the Early Implementation Study provide evidence that a professional development intervention that includes structured training supported by individualized technical assistance and opportunities for practice can improve the quality of teacher-child interactions. Teacher who participated in the study made significant gains on their post-intervention CLASS scores in the areas of Emotional Support, Classroom Organization, and Instructional Support. Instructional Support has been shown in the research to be the most robust and significant predictor of improved academic outcomes for young children.[29]   There is a compelling body of evidence that directly links quality teacher-child interactions with student achievement and improved social and behavioral outcomes. The results of the Early Implementation Model pilot study are promising, and demonstrate that greater quality investments in professional development and training for the early education workforce will likely produce positive results such as greater quality of early childhood programs, improved academic, social and other outcomes for young children, and reap the potential for lasting impacts as young children progress through the early elementary grades.

---

[29] Pianta, R., La Paro, K., & Hamre, B. (2008). *Classroom Assessment Scoring System, PRE-K, Manual*. Brookes Publishing Co., Baltimore, MD.

D-V-1 CLASS Video Library and Video Library Companion

Brief (15 to 20 Word) Description:

The online Video Library provides access to over 100 authentic classroom videos focused on the teacher-child interactions that help increase learning. Each video is highlighted with focus text to help identify the interactions that help children learn and develop.

	I. In-person (face-to-face)
	II. Online interactive (e.g., via Webinar)
	III. Online NOT interactive (e.g. listen or read only)
	IV. Combination of live and virtual/online
	V. Other

*If CLASS Discussion Toolkit is used, this becomes a combination of online learning and live facilitated discussion led by a coach, administrator, or lead teacher.

Briefly describe the approach and why it is appropriate for meeting the learning objectives:

Participants watch short video clips to identify indicators and behavioral markers associated with effective teacher/child interactions. After watching, they check the focus text to see descriptions of the specific interactions related to the CLASS dimension under study. The Video Library Companion and Dimensions Guide provide a structured way to explore and discuss the Video Library in a Professional Learning Community.

Table A. Check all that apply to this stand-alone product:

	Professional Development Category
x	a. Quality of teacher-child interactions
	b. Providing developmentally appropriate preschool learning environments
	c. Early literacy skills
	d. Early mathematics skills
	e. Early scientific development skills
x	f. Promoting preschool children's critical thinking, problem solving, and other executive functions
x	g. Promoting preschool children's social and emotional development
	h. Instructional services and support for students with disabilities
	i. Instructional services and support for English language learners
	j. Behavior management techniques for diverse preschool children
	k. Preschool classroom management techniques
	l. Elementary school leadership development to support and strengthen early learning programs

	m. Communicating with diverse parents of preschool children
	n. Aligning early childhood education programs from birth through third grade or preschool to third grade
	o. Family engagement and support services, including comprehensive preschool services, and effective family engagement strategies designed to sustain improved early learning outcomes through third grade

2. Which of the Essential Domains of School Readiness does this stand-alone professional development offering focus on (Check one or more)

x	Language and literacy development
x	Cognition and general knowledge (including early mathematics and early scientific development)
	Approaches toward learning (including the utilization of the arts)
	Physical well-being and motor development (including adaptive skills)
x	Social and emotional development

3. Who is your target audience? (Check all that apply.)

x	Teachers
x	Coaches
x	Administrators
x	Teacher Assistants
	Other service providers (elaborate)
	Parents and families

4. What is the length of delivery in hours (time required excluding self-study or other assignments)?

20 hours

5. What are the goals and learning objectives of the professional development offering?

Participants build their ability to identify and describe effective teacher-student interactions within each CLASS® dimension by watching real videos from real classrooms and reading the accompanying focus text, as well as engaging in discussion with peers and facilitators within their organization.

6. Describe the measurement process you will use to determine whether participants met the learning goals and objectives.

N/A, self-guided

7. Describe how this offering is consistent with the definition of high-quality professional development as defined in Section III of the Request for Proposals.

This program is aligned with developmentally appropriate teacher/child interactions and pedagogy. It includes embedded feedback (focus text) for participants to review after they watch each video. It is structured on research-based classroom interactions correlated with improved student outcomes. If the Video Library

Companion is purchased as a supplement, a facilitator can use it to guide groups of teachers through focused discussion of the videos.

8. Describe qualifications of the individuals/staff who developed this offering.

This professional development offering was developed by highly experienced Teachstone staff members and is based on the extensive research and framework of the CLASS tool. All Teachstone staff responsible for developing this offering met the following criteria:
- Masters or PhD in Education
- Extensive experience in early childhood education
- Knowledge of adult learning standards and best practices
- Extensive experience using software to create online learning
- Experience and training in using an instructional design process, including learner needs analysis, iterative design and development, and evaluation of training effectiveness.
- Reliable in multiple age levels of the CLASS with extensive experience using the CLASS in observation and coaching settings

9. Describe the qualifications of the individuals/staff who deliver the professional development program and their previous experience providing professional development aimed at strengthening early learning environments for children from economically disadvantaged families.

N/A -Self-guided. See above for qualifications of the developers

10. Describe the alignment to Virginia's Foundation Blocks for Early Learning, Kindergarten Standards of Learning, and Milestones for Child Development, as applicable. For example, professional development related to behavior management techniques for preschool children would need to align with the Foundation Blocks for Personal and Social Development.

The teacher/child interactions shown in the classroom videos are aligned with the Foundation Blocks and Milestones, especially social and emotional development, language development, and cognitive development.

See Attachment D: Introduction to Teachstone's Approach for more information.

11. Describe any pre-requisites for participation, resources needed (if any), and space requirements (if any) for participation.
- Computer or tablet with internet access.

12. Has the proposed professional development offering been subject to rigorous evaluation as defined in Section III of this Request for Proposals?

	No
x	Yes

If yes, in the space below, summarize the evaluation methods, the population in which the program has been subject to rigorous evaluation (as defined in this proposal), and provide documentation verifying the results have been subject to an external peer review process by including a copy of the study just after this attachment. (For example, if the Attachment name is D-I-1, within Tab 6 of your proposal, include it after attachment D-I-1).

Research shows that teachers who watch classroom videos make greater gains in their interactions with children. By using the Video Library, teachers and care providers build an internal working model of how to interact more intentionally and effectively with children.[1]

Teachstone's online resources for teachers, including the CLASS Video Library, were developed based on research showing that teachers who engage with video exemplars improve their interactions. The CLASS Video Library provides brief videos of effective teacher-child interactions within each CLASS dimension. Focus text for each video draws teachers' attention to the relevant interactions. Teachers who used the CLASS Video Library increased the effectiveness of their interactions with students .[2]

References

[1] Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service. (2010). *Toward the identification of features of effective professional development for early childhood educators: Literature review.* Washington, DC: U.S. Department of Education.

[2] Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). *Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. Early Childhood Research Quarterly, 23(4),* 431-451.

13. How much time will your participants need to commit? (Provide total number of days, hours per day, and the total time frame in months in which participants will be expected to participate, and a justification for the time commitment needed to meet the objectives of the professional development opportunity.) If you are also proposing another delivery method for this professional development offering, describe both delivery methods in your narrative, including any differences in the time commitment required.

Online Professional Development	
20	Total Hours
10 min	Minimum time for each segment/lesson

Please describe, including the time participants will need to commit, here.

The time spent with this online resource will vary depending on the goals and needs of the participant. Most videos are less than three minutes. The Video Library Is divided by CLASS dimension and Illustrates effective teacher-child interactions in day-to-day classroom situations. It gives users an opportunity to practice observing and categorizing interactions and Includes accompanying text that explains why certain interactions are effective. Participants may choose to examine videos in certain domains or may repeat videos for greater clarity about specific indicators and behavioral markers. Over time, a participant could likely view and study all of the videos in about 20 hours. Additional time may be spent in discussion with other Video Library viewers and can be facilitated with purchase of the supplemental Video Library Companion.

7. Attachment E: Pricing Schedule

I. Face-to-Face Pricing Schedule

Name of Professional Development Offering	PD Category	Total Cost for 25 participants	Length of Delivery (in Hours)	Per Hour Price
Introduction to the CLASS Tool Face-to-Face	afg	$7,000 max 50 participants	7	$1,000
CLASS Observation Training*	afg	up to 15 participants: $8,500 (+$425 ea up to a max of 17) 25 participants would require 2 trainings	15: 16 hrs 25: 32 hrs	15: $531 25: $531
CLASS Train-the-Trainer Program*	afg	$10,000 + $2,000 per participant up to 13 participants; 13 participants: $36,000 25 participants would require 2 trainings	13: 24 hrs 25: 48 hrs	13: $1,500 25: $1,458
Double Coding with the CLASS Tool*	a	This is not available for group delivery because it is 1:1 participant:expert Teachstone observer (1 day=7 hours) 1 day: $3,500 2 day: $5,500 3 day: $7,800 4 day: $10,100 5 day: $12,400	days x 7 hours = total hours	1 day: $500 2 day: $393 3 day: $371 4 day: $361 5 day: $354
CLASS Feedback Strategies for Coaches*	afg	25 participants: $10,550 $6,000 (up to 12 participants) + $350 per additional participant over 12 (max 35)	8	25: $1,318
Instructional Support Strategies for Coaches	af	25 participants: $10,550 $6,000 (up to 12 participants) + $350 per additional participant over 12 (max 35)	8	25: $1,318
Effective Coaching Practices with myTeachstone*	afgk	up to 13 participants $8,500 25 participants would require 2 trainings	15: 16 hrs 25: 32 hrs	15: $531 25: $531

*These offerings are priced with a flat fee and then additional per participant fees. We have included in the third column information regarding scaled pricing for increased or decreased numbers of participants.

II. Virtual/Online Interactive Pricing Schedule

Name of Professional Development Offering	PD Category	Total Cost for 25 participants	Length of Delivery (in Hours)	Per Hour Price
CLASS Coding Calibration with Live Webinar	a	cost for 25 participants: $2,250 $1350 for up to 15 participants, +$90 per additional participant	2	$1,125

III. Virtual/Online Read-Only Pricing Schedule

Name of Professional Development Offering	PD Category	Total Cost for unlimited participants	Length of Delivery (in Hours)	Per Hour Price
Online Introduction to the CLASS Tool	afg	$45/user	2	$22.50
myTeachstone	afgk	$110/teacher; $5,500 minimum initial purchase) (free access for coaches, admins, and observers)	varies	depends upon user's usage; *at most* $110
Instructional Support Strategies for Coaches Online	af	$200/user	13	$15
Instructional Support Strategies for Teachers Online	af	$100/user	4	$25
CLASS Feedback Strategies for Coaches Online	a	$75/user	1	$75
CLASS Coding Calibration	a	$75/user** discounts for group purchases available	2	$38

IV. Combination of Virtual/Online and Face-to-Face Pricing Schedule

Name of Professional Development Offering	PD Category	Total Cost for 25 participants	Length of Delivery (in Hours)	Per Hour Price
MyTeachingPartner Coach Training and Support (MTP Coach)	afg	Total costs per year for 25 teachers receiving MTP coaching via 2 local coaches trained by Teachstone over 3 years of implementation (Note: Credentialing years are optional): Coach Training (Year 1): $28,000 Coach Credentialing (Year 2): $9,000 Coach Credentialing (Year 3): $6,000 Coach Training Year 1: $10,000 flat fee+$6,500/instructor Up to 10 coaches per training. Each MTP coach can coach up to 15 teachers per year. Coach Credentialing Stage 1 (Year 2): $2,000/coach Coach Credentialing Stage 2 (Year 3): $500/coach Teacher Participant Materials for all years: $200/teacher (iPods, tripods, and cases are required, but not included in this price; they are available for purchase for $325/kit from Teachstone or participants can supply their own)	Year 1: 104 hours Year 2: 18 hours Year 3: 10 hours	Year 1: $269 Year 2: $500 Year 3: $600
Making the Most of Classroom Interactions (MMCI)	afg	Total cost for 25 teachers receiving MMCI coaching via 1 local coach trained by Teachstone (to be delivered in 1 school year): $14,250 $8,000 flat fee+$2,500/instructor Up to 10 coaches per training. Each MMCI instructor can train up to 20 teachers per course and 3 courses per year, so a maximum of 60 teachers per year Teacher Participant Materials: $150/teacher	24 hours	$594

V. Other Pricing Schedule

Name of Professional Development Offering (as indicated in Table I, II, III, or IV)	Proposed Delivery Method	Length of Delivery (in Hours)	Number of Participants included in total price	Total Price
CLASS Video Library and CLASS Discussion Toolkit	Self-Study by teachers or a group of teachers with a facilitator	Video Library Access Only: 1 month: $25/user 6 months: $150/user** 1 year: $175/user** CLASS Discussion Toolkit (including 6 months VL per user, Dimensions Guides per user, 1 Video Library Companion) 10 users, 1 facilitator: $990 **discounts for group purchases available (10+ users)	Video Library Only: 1 user CLASS Discussion Toolkit: 11	VL Only: 1 mo: $1.25 6 mo: $7.50 1 yr: $8.75 CDT: $49.50

8. Appendices

8.1a Resumes of Professional Development Training Team

Lisa M. Criss

lisa.criss@teachstone.org

TECHNICAL SKILLS

- Proficient in Microsoft Word, Excel, PowerPoint, Publisher, Outlook
- SAMOA (Service Area Monitoring and Ongoing Assessment)
- HSES (Head Start Enterprise System)
- Computer skills
- Yahoo Blogs
- Experience with web-cam communication through Skype
- Typing, Email, Fax, Scanner, & Copy machine experience
- Twitter & Facebook networking

EDUCATION

- **Masters of Art in Organizational Management**
  2010, Spring Arbor University, Lansing, MI
- **Bachelors of Art in Family Life Education**
  2008, Spring Arbor University, Lansing, MI
- **Associates of Science in Early Childhood Education**
  2000, Oakland Community College, Commerce Twp., MI

PROFESSIONAL EXPERIENCE

- **Teachstone Training LLC**, 105 Monticello Ave, Suite 101, Charlottesville, VA 22902
  Training Manager 2014-present
- ➢ Train on the Classroom Assessment Scoring System (CLASS), supervise

- **Teachstone Training LLC,** 105 Monticello Ave, Suite 101, Charlottesville, VA 22902
  Staff Trainer 2011-2014
- ➢ Train on the Classroom Assessment Scoring System (CLASS) Infant, Toddler, Pre-K, Toddler Train-the-Trainer, Pre-K Train-the-Trainer

- **STG International, Inc.**, 99 Canal Center Plaza, Suite 500, Alexandria, VA 22314
  Grantee Performance Support Specialist, 2009-2010
- ➢ Technical Consulting Assistance for Head Start grantees in Region V: Michigan
- ➢ Assist grantee needs based on PIR data, Risk Management process, Federal Reviews, Community Assessment, or Self-Assessment

Lisa M. Criss

lisa.criss@teachstone.org

- ➤ Participant in Risk Management Meetings
- ➤ Conduct CLASS (Classroom Assessment Scoring System) trainings
- ➤ Working in collaboration with Regional Program Specialist to assist grantees
- ➤ Assist grantee with Head Start initiatives and priorities

- **Telamon Corp. Michigan Migrant Head Start**, 6350 W. Michigan Ave., Lansing, MI 48917

  State Education Specialist, 2004-2009

- ➤ Train classroom staff on policies, procedures, early childhood best practices, and Head Start Performance Standards
- ➤ Monitor classrooms for quality of services (child teacher interactions, routines, curriculum, lesson plans, mandated posting, classroom child files, individualization)
- ➤ Update policies and procedures used in classroom
- ➤ Create and update documents used by classroom staff
- ➤ Curriculum outcomes training and review
- ➤ Recording finding in SAMOA
- ➤ Co-chair of the Family & Community Partnership Committee
- ➤ RIF (Reading Is Fundamental) Coordinator (grant renewal, tracking, book ordering, book distributions, parent workshops)
- ➤ CDA (Child Development Associate) Advisor

- **Griff & Vicki's Child Care Center**, 2111 N. Aurelius Rd., Holt, MI 48842

  Program Director, 2001-2003

- ➤ License renewal
- ➤ Maintaining staff/child state licensing ratios
- ➤ Fundraising
- ➤ Supervising staff
- ➤ Parent communication
- ➤ Enrolling families
- ➤ Updated parent handbook
- ➤ Monthly newsletters
- ➤ Transporting school aged children to local elementary school
- ➤ Conduct staff meetings
- ➤ Coordinate CACFP (Child & Adult Care Food Program) funded by the state of Michigan

Lisa M. Criss

lisa.criss@teachstone.org

CERTIFICATIONS AND MEMBERSHIPS

- Certified CLASS trainer (Infant, Toddler & Pre-K)
- 2014 Infant CLASS (CLASS Assessment Scoring System) Charlottesville, VA
- 2011 Pre-K Train-the-Trainer CLASS (Classroom Assessment Scoring System) Philadelphia, PA
- 2011 Toddler CLASS (Classroom Assessment Scoring System) Lansing, MI
- 2009 Pre-K Train-the-Trainer CLASS (Classroom Assessment Scoring System) Chicago, IL
- 2008 Pre-K CLASS (Classroom Assessment Scoring System) Denver, CO
- 2008 Understanding Infant Adoption Training Curriculum (Lansing, MI)
- 2005 Denver II Screening (Flint, MI)
- 2005 Infant Toddler Development Assessment (IDA) (Lansing, MI)
- 2004 The Creative Curriculum for Preschool (on-line assessment tool) (Chicago, IL)

PRESENTATIONS

- **Michigan Association for the Education of Young Children** (MiAEYC) 2015- An Introduction to Improvement to Improvement Strategies
- **Classroom Assessment Scoring System** Infant, Toddler, & Pre-K 2011-Present
- **STG International, Inc.** 2009-2010 Head Start specific trainings
- **Telamon Corp. Michigan Migrant Head Start** 2004-2009 Annual Pre-service & Cluster Trainings
- **Michigan Association for the Education of Young Children (MiAEYC)** 2009 Co-presenter of We're In This Together, Team Building for early childhood educators
- **Coming Together for Children Conference** 2009 Co-presenter of We're In This Together, Team Building for early childhood educator
- **National Association for the Education of Young Children (NAEYC)** 2004 & 2005 Panel presentation for Second Language Acquisition for early childhood educators

PUBLICATIONS

- Criss, L. (2006). *Can Johnny Play a Song?* AuthorHouse: Bloomington, IN.
- Criss, L. (2008). *You Can't Teach a Doll How to Fish.* PublishAmerica: Frederick, MD.

Lisa M. Criss

lisa.criss@teachstone.org

GRANTS AND PROPOSALS

- **Reading Is Fundamental:** Family of Readers 2004-2009

  Annual renewal for funding to purchase books for Migrant Head Start children

  Receive $10,000 annually

- **Lisa Libraries** 2006

  Books for Migrant Head Start classrooms

  Received $4,000 in estimated book donation

- **Child & Adult Care Food Program** 2001-2003

  Menu planning, meal reimbursements

VOLUNTEER EXPERIENCE

- Telamon Corporation Michigan Migrant Head Start: (2010)
- Towar Hart Baptist Church: Pastoral Search Committee (2009-2010)
- Towar Hart Baptist Church: Religious Education (2010)
- St. Thomas Aquinas Catholic Church: Religious Education (2008-2009)
- March of Dimes: Walk for Babies (2005 & 2007)
- Towar Hart Baptist Church: Vacation Bible School (2002-2004)
- St. John the Baptist Catholic Church: Religious Education (1994-2001)

OTHER WORK HISTORY

- **Telamon Michigan Migrant Head Start,** Lansing, MI

  Mentor Coach (contract work) 2011-2011

- **Children Discovery Day Care**, Auburn Hills, MI

  Program Director 2001-2001

- **Tutor Time Child Care Center**, Commerce Twp, MI

  Preschool Teacher 1999-2000

- **Robin Marie's Child Care Center**, Commerce Twp, MI

  Caregiver (internship) 1998-1999

- **World of Wonders Child Care Center**, White Lake, MI

  Caregiver 1993-1996

FRANCINE K. OLIVER

FRANCINE.OLIVER@TEACHSTONE.ORG

EXPERIENCE

SENIOR MANAGER FOR PROFESSIONAL DEVELOPMENT
Teachstone; Charlottesville, Virginia   *2014-Present*
- Supervise the delivery and implementation of all observer support and professional development services
- Work with Teachstone staff and clients to assure programs are delivered effectively and with fidelity to the research model
- Anticipate client needs and design solutions to fit

PD SPECIALIST
Teachstone; Charlottesville, Virginia   *2011-2014*
- Provided training and ongoing support to MTP coaches
- Assisted coaches in understanding the MTP model
- Provided direct coaching to MTP teachers using the MTP model

MASTER TRAINER: CLASSROOM ASSESSMENT SCORING SYSTEM (CLASS)
Teachstone; Charlottesville, Virginia   *2009-2010*
- Led a variety of CLASS training programs; teaching diverse client base to use the CLASS measurement tool reliably in research and professional development settings
- Acted as double-coder to assess inter-rater reliability
- Provided support to researchers and educators using the CLASS instrument

DIRECTOR OF DEVELOPMENT AND IMPLEMENTATION, TPR
CaseNEX; Charlottesville, Virginia   *2007-2009*
- Conceptualized, led and organized the development of the Teaching Performance Record (TPR) observation instrument
- Provided functional and technical guidance to staff and management
- Defined and assigned projects to contract employees—prioritized work flow and assured all deadlines were met
- Recruited, trained, supported and supervised employees
- Collaborated with school, district and university partners to identify professional development needs

CONTENT DEVELOPMENT SPECIALIST
CaseNEX; Charlottesville, Virginia   *2006-2007*
- Developed course syllabi and supplementary materials for professional development programs and college courses
- Collaborated with media, implementation and technology departments to create and implement new content and programs

RESEARCH ASSISTANT
CaseNEX; Charlottesville, Virginia   *2006-2007*
- Ensured solid leading edge resources were used in courses
- Assisted in the identification of programs, tools and materials to enhance the professional development programs offered by CaseNEX
- Managed online database

FRANCINE K. OLIVER

TEACHING	**COURSE INSTRUCTOR**
	University of Virginia; Charlottesville, Virginia *2007-2008*
	• EDIS 501, Curriculum and Instruction: *focuses on principles of designing, planning, managing and assessing instruction in regular education and special education settings*
	• EDIS 502, Assessment and Instruction: *introduces additional instructional strategies and explores assessment, differentiation, and classroom management*
	• EDIS 488, Field Placement
	TEACHING ASSISTANT
	University of Virginia; Charlottesville, Virginia *2006-2007*
	• EDIS 501, Curriculum and Instruction
	• EDIS 502, Assessment and Instruction
	• EDIS 488, Field Placement
	UNIVERSITY SUPERVISOR
	University of Virginia; Charlottesville, Virginia *2006-2008*
	• Advised and supported students seeking degree in Elementary Education
	ONLINE COURSE INSTRUCTOR
	North Georgia College and State University (NGCSU); Dahlonega, Georgia *2006*
	• Curriculum and Supervision
	ELEMENTARY TEACHER
	Cherry Creek Public Schools; Denver,Colorado *2003-2004*
	ELEMENTARY TEACHER
	Fairfax County Public Schools; Fairfax, Virginia *1995-1998/2002-2003*
HONORS	**ELSIE HUGHES CABELL ENDOWED SCHOLARSHIP**
	University of Virginia; Charlottesville, Virginia *2007-2008*
VOLUNTEER	**WRITING COACH**
	College Summit; Richmond, Virginia *2007*
	• Worked with high school seniors to craft personal statements for college applications
	VOLUNTEER
	Global Volunteer Network; Entebbe, Uganda *2005*
	• Raised $4,000 for children orphaned to AIDS in Uganda
	• Assisted in construction of an elementary school in Uganda
	• Participated in fundraising climb and summited Mt. Kilimanjaro
EDUCATION	**UNIVERSITY OF VIRGINIA**
	Charlottesville, Virginia—M.Ed. Curriculum and Instruction, 2006
	RADFORD UNIVERSITY
	Radford, Virginia—B.S. Elementary Education, 1994

VICTORIA KINTNER-DUFFY
Curriculum Vitae

Educational Background

Ph.D. The University of North Carolina at Greensboro   May 2011
      Specialization: Early childhood education
      Dissertation advisor: Dr. Catherine Scott-Little
      Dissertation title: "Everyone's the different and the same": A mixed method examination of early childhood teachers' beliefs, knowledge, and classroom practices with children from culturally diverse backgrounds.

M.S. The University of North Carolina at Greensboro   May 2008
      Specialization: Early childhood education
      Thesis title: Beliefs and practices in early care and education: The relationships among teachers' and administrators' beliefs and characteristics, classroom practices, and global quality

B.A. Centenary College of Louisiana (Psychology; Dance)   May 2004

Professional and Research Experience

Professional Development Specialist	*Teachstone Training, LLC* • Provide collaborative coaching for toddler and preschool teachers using the My Teaching Partner (MTP™) model • Facilitate weekly conference calls with coaches focused on improving teacher-child interactions • Manage the creation of professional development materials for teachers and coaches • Provide coding support for observers • Serve as Research and Evaluation liaison • Reliable on Pre-K and Toddler CLASS Tools	2011-present
Research Assistant	*North Carolina Rated License Assessment Project* • Project Coordinator for a statewide research project of child care center quality • Managed data collection and analysis • Created oral and written presentations of research findings • Experienced with ECERS-R, ECERS-E, and POEMS	2009-2011
Research Assistant	*Dr. Deborah Cassidy* The University of North Carolina at Greensboro • Conducted data collection and analyses for research related to teacher turnover, family diversity, and improving child care quality	2007-2009
Trainer	*North Carolina Rated License Assessment Project* The University of North Carolina at Greensboro	Spring 2009

          • Trained assessors on the Contentedness and Comfort of Children in
          Child Care (C5 Scale)
          • Conducted regular reliability checks on the C5 scale

Level 2 Assessor	*North Carolina Rated License Assessment Project*	2005-2007
	The University of North Carolina at Greensboro	
	• Conducted quality assessments using the ECERS-R	
	• Created written reports of quality assessments	
Quality Improvement Consultant	*Guilford Child Development*	Fall 2007
	• Completed mock observations of Head Start classrooms	
	• Assisted teachers in improving ECERS-R scores	
Preschool Teacher	*Noel Children's Center*	2004-2005
	• Created and facilitated daily learning activities for children	
	• Communicated with families regarding child development	

Teaching Experience

University of North Carolina at Greensboro
• Spring 2013: SES 606 – *Teaching Methods in Inclusive Early Childhood Settings*
     (graduate; adjunct instructor)
• Spring 2012: SES 604 – *Internship in Inclusive Early Childhood*
     (graduate; adjunct instructor)
• 2010-2011: HDFS 340 – *Birth-Kindergarten Practicum I / Professional Seminar*
     (undergraduate; practicum supervisor and instructor of weekly seminar)
• Fall 2009: HDFS 425 – *Infant / Toddler Teaching Methods*
     (undergraduate; co-teacher)
• Fall 2007: HDFS 211 – *Introduction to Lifespan Development*
     (undergraduate; teaching assistant)

Florence-Darlington Technical College
• Fall 2011: ECD 135 – *Health, Safety, and Nutrition for the Young Child*
     (undergraduate; adjunct instructor)
• Fall 2011: ECD 243 – *Early Childhood Field Placement*
     (undergraduate; practicum supervisor and instructor of weekly seminar)

Research Interests

- Investigating the content and effectiveness of early childhood teacher preparation and professional development, particularly with regard to diverse children and families
- Improving child care quality, specifically in terms of increasing affordability and accessibility for children and families from marginalized populations
- Definitions and measurement of classroom quality in early care and education settings
- Feminist/critical theories and qualitative methods as they apply to early childhood education and teacher preparation

Publications

Hestenes, L. L., Kintner-Duffy, V. L., Wang, Y., La Paro, K. M., Mims, S., Crosby, D., Scott-Little, C., & Cassidy, D. J. (2015). Comparisons among quality measures in child care settings: Understanding the use of multiple measures in QRIS and their links to social-emotional development in preschool children. *Early Childhood Research Quarterly.30 (B),* 199-214.

La Paro, K. M., Scott-Little, C., Ejimofor, A., Sumrall, T., Kintner-Duffy, V. L., Pianta, R., . . . Howes, C. (2014). Student teacher feedback and evaluation: Results from a seven state survey. *Journal of Early Childhood Teacher Education, 35 (4),* 318-336.

Hatfield, B. E., Hestenes, L. L., Kintner-Duffy, V. L., & O'Brien, M. (2013). Classroom process quality predicts differences in preschool children's cortisol and alpha-amylase levels. *Early Childhood Research Quarterly, 28 (2),* 347-356.

Kintner-Duffy, V. L., Vardell, R., Lower, J. K., & Cassidy, D. J. (2012). "The changers and the changed": Preparing early childhood teachers to work with lesbian, gay, bisexual, and transgender families. *Journal of Early Childhood Teacher Education, 33 (3),* 208-223.

La Paro, K. M., Thomason, A. C., Lower, J. K., Kintner-Duffy, V. L., Cassidy, D. J. (2012). Examining the definition of quality in early childhood education: A review of the use of the ECERS-R from 2003 to 2010. *Early Childhood Research and Practice.*

Cassidy, D. J., Lower, J. K., Kintner, V. L., Hegde, A. V., & Shim, J. (2011). The day to day reality of teacher turnover in preschool classrooms: An analysis of classroom context and teacher, director, and parent perspectives. *Journal of Research in Childhood Education, 25,* 1-23.

Morgan, M. Y., Vardell, R., Lower, J. K., Kintner-Duffy, V. L., Cecil-Dyrkacz, J., & Ibarra, L. (2010) Empowering women through photovoice: La Carpio, Costa Rica. *Journal of Ethnographic and Qualitative Research, 5,* 31-44.

Cassidy, D. J., Hansen, J. K., Kintner, V. L., & Hestenes, L. L. (2009). Teacher ethnicity and contextual factors: The implications for classroom quality. *Early Education and Development, 20,* 305-320.

Manuscripts under review/in preparation:

Cassidy, D. J., Lower, J. K., Kintner-Duffy, V. L., Wang, Y., & King, E. (under review). The emotional dance of child care: Teachers' emotional health and children's emotional experiences in child care. *Early Childhood Research and Practice.*

Kintner-Duffy, V. L., Scott-Little, C., & Vardell, R. (in preparation). "Everyone's the different and the same": An inquiry into early childhood teachers' beliefs and practices with children from culturally diverse backgrounds.

Presentations

Kintner-Duffy, V. L., Scott-Little, C., & Smith, N. (June, 2013). *"Everyone's different and the same": Exploring cultural diversity in early childhood teacher education.* Paper presented at the National Education of the Association of Young Children Professional Development Institute, San Francisco, CA.

La Paro, K. M., Ejimofor, A., Kintner-Duffy, V. L., Scott-Little, C., & Sumrall, T. (June, 2013). *NCRECE study on the supervision of student teachers: Findings across 2- and 4-year institutions.* Paper presented at the National Education of the Association of Young Children Professional Development Institute, San Francisco, CA.

Spano, S., Kintner-Duffy, V. L., & McCarty, J. (April, 2013). *CLASS-based professional development strategies: Working with teachers of toddlers.* Paper presented at the North Carolina Annual Smart Start Conference, Greensboro, NC.

Scott-Little, C., La Paro, K. M., Kintner-Duffy, V. L., & Ejimofor, A. (June, 2012). *Supervising student teacher field placements: Preliminary results from a 7-state survey.* Paper presented at the National Association for the Education of Young Children Professional Development Institute, Indianapolis, IN.

Cassidy, D. J., Lower, J. K., & Kintner-Duffy, V. L. (June, 2011). *"If you're happy and you know it": Understanding and assessing children's emotional experiences in child care centers.* Paper presented at the National Association for the Education of Young Children Professional Development Institute, Providence, RI.

Kintner-Duffy, V. L. (May, 2011). *"Everyone's the different and the same": An inquiry into early childhood teacher preparation.* Invited presentation for the Early Learning Collaborative with the North Carolina Division of Child Development, Raleigh, NC.

Cassidy, D. J., Kintner-Duffy, V. L., & Mims, S. (May, 2011). *What are the differences in North Carolina's star ratings? Implications for child outcomes and Quality Rating and Improvement Systems.* Presentation at the North Carolina Smart Start Annual Conference, Greensboro, NC.

Rucker, L., Kintner-Duffy, V. L., & Wyrick, N. (May, 2011). *Understanding classroom quality: A look at classrooms' strengths and challenges on multiple quality assessment tools and implications for technical assistance.* Presentation at the North Carolina Smart Start Annual Conference, Greensboro, NC.

Lower, J. K., Cassidy, D. J., & Kintner-Duffy, V. L., (May, 2011). *The emotional dance of child care: Teachers' emotional health and children's emotional experiences in child care.* Presentation at the North Carolina Smart Start Annual Conference, Greensboro, NC.

Kintner-Duffy, V. L., Scott-Little, C., & Vardell, R. (April, 2011). *"It was never really talked about": A qualitative inquiry into understanding early childhood teachers' preparation and classroom practices with children from culturally diverse backgrounds.* Paper presented at the American Education Research Association Annual Meeting. New Orleans, LA.

Kintner-Duffy, V. L., Mims, S., Hestenes, L. L., & Hestenes, S. L. (March, 2011). *Comparisons*

among quality measures in child care settings: Indicators of quality in relation to child outcomes. Poster presented at the Society for Research in Child Development Biennial Meeting, Montréal, Québec, Canada.

Hestenes, L. L., Kintner-Duffy, V. L., & Crosby, D. A. (March, 2011). *Unique contribution of outdoor environmental quality to children's cognitive and emotional experiences: A comparison of measures.* Poster presented at the Society for Research in Child Development Biennial Meeting, Montréal, Québec, Canada.

Hatfield, B. E., Hestenes, L. L., Kintner-Duffy, V. L., & O'Brien, M. (March, 2011). *Classroom quality and the stress response system: Relationships among coritsol and alpha-amylase in preschool children.* Paper presented at the Society for Research in Child Development Biennial Meeting, Montréal, Québec, Canada.

Kintner-Duffy, V. L., & Hestenes, L. L. (November, 2010). *A comparison of quality assessment tools: Preliminary results.* Invited presentation for the Early Learning Collaborative with the North Carolina Division of Child Development, Raleigh, NC.

Hestenes, L. L., & Kintner-Duffy, V. (March, 2010). *A comparison of quality assessment tools: An introduction to the project and procedures.* Invited Presentation for the Regulatory Regional Training, North Carolina Division of Child Development, Greensboro, NC and Hickory, NC.

Hestenes, L. L., Mims, S. Crosby, D., Kintner-Duffy, V. L., Rucker, L., & La Paro, K. (June, 2010). *A comparison of quality assessment tools: A review of quality measures.* Invited presentation for the Quality Rating and Improvement System Advisory Committee for the North Carolina Division of Child Development, Raleigh, NC.

Cassidy, D. J., Hestenes, L.L., & Kintner-Duffy, V. L. (2010, June). *Teachers' and children's experiences: Relationships among personal characteristics, emotions, and classroom quality.* Paper presented at National Association for the Education of Young Children Professional Development Institute, Phoenix, AZ.

Vardell, R., Cassidy, D. J., Kintner, V. L., Lower, J. K., Lesser, L. K., & Gelnaw, A. (2009, June). *Making room in the circle: Working with lesbian, gay, bisexual, and transgender families in early education settings.* Paper presented at National Association for the Education of Young Children Professional Development Institute, Charlotte, NC.

Morgan, M. Y., Vardell, R., Lower, J. K., Kintner, V. L., & Cecil, J. (2009, May). *Empowering women through photovoice.* Paper presented at International Congress of Qualitative Inquiry Annual Meeting, Champaign-Urbana, IL.

Vardell, R., Kintner, V. L., Lower, J. K., & Cassidy, D. J. (2009, May). *Participant observation: Learning and unlearning through shared stories in higher education.* Paper presented at International Congress of Qualitative Inquiry Annual Meeting, Champaign-Urbana, IL.

Kintner, V. L., & Scott-Little, C. (2009, April). *Beliefs and practices in early care and education: Teachers' and administrators' beliefs and characteristics, classroom practices, and global quality.* Paper presented at American Education Research Association Annual Meeting, San Diego, CA.

La Paro, K. M., Cassidy, D. J., Lower, J. K., Thomason, A. C., & Kintner, V. L. (2009, April). *High stakes definitions of quality: Should the ECERS-R be the gold standard?* Paper presented at Society for Research in Child Development Annual Meeting, Denver, CO.

Cassidy, D. J., Lower, J. K., & Kintner, V. L. (2008, May). *Early childhood professional development: How it matters to child care quality.* Presentation at North Carolina Smart Start Annual Conference, Greensboro, NC.

Lower, J. K., Kintner, V. L., Cassidy, D. J., & Hegde, A. V. (2008, March). *The lived reality of teacher turnover in preschool classrooms: A qualitative analysis of teacher, director, and parent perspectives.* Paper presented at American Education Research Association Annual Meeting, New York.

Hansen, J. K., Kintner, V. L., & Cassidy, D. J. (2007, April). *Teacher ethnicity and contextual factors: The implications for classroom quality.* Poster presented at the American Education Research Association Annual Meeting, Chicago.

Professional Affiliations

National Association for the Education of Young Children	2008-present
Society for Research on Child Development	2008-present

Service

Reviewer

Early Childhood Research Quarterly	2013

University Committee Involvement

Member	Quint-State Conference Committee	2010-2011
Chair	Faculty Student Liaison Committee	2009-2010
Vice-Chair	Faculty Student Liaison Committee	2008-2009
Chair	Graduate Mentoring Committee	2007-2008
Member	Faculty Student Liaison Committee	2007-2008
Member	Graduate Mentoring Committee	2006-2007
Member	Quint-State Conference Committee	2005-2006

Honors and Scholarships

School of Human Environmental Sciences Outstanding Graduate Teaching Assistant Award	2010-2011
Centenary College Outstanding Psychology Student	2003-2004
Kappa Omicron Nu	2008-present
Psi Chi	2003-present
Omicron Delta Kappa	2003-present
Alpha Chi	2002-present
John C. Lockhart Scholarship	2010-2011

Child Development Scholarship   2009-2010
Mary Elizabeth Keister Scholarship   2008-2009
Ellen Hickman Scholarship   2007-2008
Greensboro Graduate Scholar   2005-2007

nikki.croasdale@gmail.com

NIKKI CROASDALE

SKILLS
- Proficient in Microsoft Office Suite and Google Drive Apps
- Working knowledge of SPSS Statistics Software

WORK EXPERIENCE

TEACHSTONE TRAINING, LLC

Major accomplishments:

- Became certified to conduct Classroom Assessment Scoring System (CLASS) observations at all age levels, Infant through Secondary
- Served as product owner in agile development of one of Teachstone's key products
- Managed several significant client relationships/contracts
- Led inter-departmental team in refining company policies
- Contributed to the creation of several new Teachstone services

Observer Support Manager, September 2013- present

Job tasks:

- Provide project management for development and delivery of services to support classroom observers
- Work with current and prospective clients to create service implementation plans
- Deliver services (e.g., trainings, webinars, group and one-on-one calls, written feedback on activities, etc.) to support classroom observers and other CLASS users
- Supervise and support other team members in their delivery of services

Quality Assurance Specialist, March 2013- September 2013

Job tasks:

- Develop and deliver services to support classroom observers
- Develop and quality check program materials

Quality Assurance & Evaluation Coordinator, August 2011-March 2013

Job tasks:

- Coordinate delivery of services to support classroom observers
- Assist with internal data collection and usage

BARB WIRED EVENT MANAGEMENT

Event Assistant, February 2011-June 2014

Job tasks:

- Support wedding director in event organization and management (e.g., set up and

take down wedding décor, ensure that the schedule is maintained, serve as liaison between the client and vendors, etc.)
- Write wedding blog posts

CENTER FOR THE ADVANCED STUDY OF TEACHING AND LEARNING

CLASS Coder/Research Assistant, May 2010-August 2011

Job tasks:
- Use the CLASS to assess video of preschool classrooms for a research project on teaching effectiveness
- Assist with data entry and analysis

VIRGINIA GOVERNOR'S FOREIGN LANGUAGE ACADEMIES

Resident Advisor/Teaching Assistant, June 2009-July 2009

Job tasks:

- Plan and lead activities for the students
- Assist the teachers and director with lessons and program organization

---

EDUCATION | **UNIVERSITY OF VIRGINIA – CHARLOTTESVILLE, VIRGINIA – 2007 TO 2011**

Bachelor of Arts in Psychology & Cognitive Science, with a minor in French

Activities:

- Research Assistant for UVA Psychology Department's Culture and Well-Being Lab, 2010
  - Contributed to an f-MRI study on the perception of misunderstanding
  - Transcribed and coded data collected from studies on partnered test-taking
- Member of the Jubilate Choir, 2007-2011
  - Elected President, 2010
  - Elected Membership Director, 2009
- Member of Residence Leadership & Event Planning Council, 2008

VOLUNTEER EXPERIENCE | **MADISON HOUSE VOLUNTEERING – AUGUST 2007 TO MAY 2011**
- Crisis Counselor, HELP Line
- Classroom Aide, Head Start of Charlottesville

HUMANITARIAN WORK IN HAITI – MARCH 2008

Anne Tapaszi, MyTeachingPartner (MTP) Specialist

Ms. Tapaszi is an MTP Specialist at Teachstone Training, LLC, where she is responsible for the provision of MTP training and ongoing support with a cohort of MTP Coaches. This includes introducing coaches to MTP through a 3-day kick-off training and supporting coaches throughout the year as they implement MTP cycles with their teachers. MTP Specialists individualize support techniques for each coach, and assist coaches to maintain fidelity to the MTP research model. MTP Specialists will also provide occasional CLASS Observation and Train-the-Trainer Programs. Additionally, she supports teachers in the MTP direct coaching model, provides CLASS Feedback training and Instructional Support Strategies training and Double-Codes classrooms for Observer Support. She has 7 years of specifically related work experience.

EDUCATION:

INSTITUTION	MM/YY	DEGREE	FIELD OF STUDY
University of Wisconsin – Madison, WI	June, 1972	B.A.	Communications
University of Wisconsin – Stevens Point, WI	Aug, 1976	B.S.	Early Childhood Education
Fort Valley State University – Ft. Valley, GA	1994		Graduate credits - Education
George Mason University – Fairfax, VA	2004 - 08		Graduate credits - Education

PROFESSIONAL CERTIFICATIONS:

ORGANIZATION	MM/YY	DESCRIPTION
CLASS Reliable – PreK - Toddler	May, 2016 November, 2015	
Train the Trainer Certification	April, 2016	
VA Teacher Certification	Exp. 2011	Early Childhood (PreK – 3)
WI Teacher Certification	Exp. 2013	Early Childhood (PreK – 1)

PROFESSIONAL AND BUSINESS AFFILIATIONS:

ORGANIZATION	MM/YY	DESCRIPTION
NAEYC, MNAYC, WECA		Premier organization promoting high-quality care and education for all young children

WORK HISTORY

Teachstone Training, LLC; MTP Specialist; 09/01/2010 – present
Coaches teachers through MyTeachingPartner, Specialist to support affiliate MTP coaches, develops materials, plans and executes trainings for Teachstone, and

Fairfax County Public Schools - Fairfax, VA. Head Start Teacher. 9/98 – 6/08
Taught a classroom of 16 low-income preschoolers in a public school setting and participated in the MyTeachingPartner original study for 3 years. (Fall, 2004 through June, 2007)

Fairfax County Public Schools/DIS. Fairfax, VA. Parenting Specialist. 01/95 – 07/98
Monitored and taught a number of tuition-based Parenting Classes, oversaw the Homeless Shelter and Incarcerated Parenting Program and produced a series of Television programs on Parenting through the local school-district (Red Apple) network.

Robins Air Force Base Schools – Robins Air Force Base, GA. 06/92 – 06/94
PreK Special Education Specialist in Base Elementary School and Child Development Center classrooms.

Julie R. Rand
EDUCATION/BUSINESS PROFESSIONAL

Objective: To obtain a position relating to my prior experience in education, business management, and providing opportunities for quality education to young children and their families.

Core Competencies

- Certified CLASS observer
- Effective Communicator
- Able to Achieve Results
- Builds Teamwork and Cohesion
- Mentor/Coach
- Demonstrates Care for Others
- Extends Influence beyond the Chain of Command

Professional Experience

TEACHSTONE TRAINING, LLC, Charlottesville, VA

Professional Development Specialist, 04/2013 to Present
- Provide collaborative trainings and coaching for toddler and preschool teachers using the My Teaching Partner (MTP™) model
- Facilitate weekly conference calls with coaches focused on improving teacher-child interactions
- Provide collaborative trainings and support for staff participating in the Making the Most of Classroom Interactions (MMCI) model
- Provide Calibration webinars for CLASS observers
- Reliable on Pre-K and Toddler CLASS Tools

COMMUNITY ACTION PLANNING COUNCIL of JEFFERSON COUNTY, INC (Head Start & Universal Pre-K), Watertown, NY

Transition/Transportation/Project Specialist, 01/2011 to 04/2013
- Facilitated meetings and trainings as needed in collaboration with Head Start Director and other Admin Specialists.
- Developed and delivered trainings and orientations for new staff for purposes of Transportation Pre-Service (4 hour) training, School Readiness, Transition, etc.
- Earned high marks for the achievements in School Readiness for the program during the Federal Review. Developed a School Readiness Goals booklet that has been sent to the Director of the National Center for Quality Teaching and Learning.
- Helped develop a School Readiness Roundtable, which consists of other early childhood professionals including, Management team members, elementary school teacher, principals, superintendents, staff members, and community members.
- Have assisted co-workers including Head Start Director and other Specialist in revising numerous monitoring documents and programs to more effectively monitor the program using Excel, Word, Publisher, COPA, etc.

KCAA PRESCHOOLS OF HAWAII-NA LEI, Kalihi, HI

<u>Center Director</u>, 01/2008 to 06/2009
- Maintained staffing, enrolling and program details for preschool center with a licensing capacity of 114 children ranging in ages from 2 years to 5 years of age.
- Maintained a monthly budget, ensured school staff met DHS, NAEYC, and NECPA requirements, and staff/child ratios were maintained at all times.
- Motivated and counseled staff in furthering their adult education while continuing to maintain required annual training.

KAMA'AINA KIDS, Ewa Beach, HI

<u>Center Director</u>, 09/2006 to 10/2007
- Staffed, enrolled, and established a brand new preschool center for company with a licensing capacity of 75 children ranging in ages from 6 weeks to 5 years of age.
- Maintained a monthly budget, ensured school and staff met DHS requirements, and staff/child ratios were maintained at all times.
- Motivated and counseled staff in furthering their adult education while continuing to maintain required annual training.
- Chosen to participate as a 2007 Castle Colleague.

KAMA'AINA KIDS, Ewa Beach, HI

<u>Lead Teacher and TIC</u>, 03/2005 to 09/2006
- Planned and implemented developmentally appropriate daily activities for preschool age children.
- Maintained progress records on social, emotional, physical, language, and creative development of children in the classroom.
- Supervised all activities to ensure the safety of each child at all times.

Education & Credentials

WALDEN UNIVERSITY — Minneapolis, MN
08/2010-05/2013: M.S. in Early Childhood Studies *with a Specialization in:* Teaching Adults in the Early Childhood Field Graduated Cum Laude.

CHAMINADE UNIVERSITY — Honolulu, HI
08/2006-05/2010: Completed a B.S. in Early Childhood Education. Graduated Cum Laude.

CASTLE COLLEAGUE PARTICIPANT – Honolulu, HI
2007: Received an award from Chaminade University as a 2007 Castle Colleague

UNIVERSITY OF PHOENIX — Honolulu, HI
2004-2006: Began working towards a Bachelor's degree in Business Administration (48 credits)

CHILD DEVELOPMENT ASSOCIATES CREDENTIAL — Manhattan, KS
2000-2002: 120 hours of CD training through CDA National Credentialing Program (received CDA Renewal in 2005 in Ewa Beach, HI)

Recommendation Letters and References available upon request

MAMIE K. MORROW

Objective

To utilize knowledge gained from over 16 years of diverse experience in education as a teacher, program manager, trainer, and coach to enhance early learning opportunities and outcomes.

Summary of Qualifications

- A creative and innovative teacher skilled in designing and facilitating interactive, developmentally appropriate learning opportunities for children in New Mexico; Germany; Guam; Alaska; Washington, D.C.; Japan; and Florida.
- A dynamic trainer able to create content and deliver clear and concise information while responding to the needs of adult audiences representing a variety of cultures and backgrounds.
- A self-motivated coach, committed to providing high-quality support to develop teachers' use of effective teaching practices that lead to positive outcomes for children.

Relevant Accomplishments

Professional Development Specialist, CLASS Trainer, and MTP Coach   08/13 - Present
Teachstone Training, Charlottesville, VA

- Utilize the CLASS framework as a professional development tool to make the most out of classroom interactions. Build self-efficacy among trainers and teachers to support intentional, meaningful and sustained interactions in the classroom.
- Conduct one- and two-day interactive training sessions to introduce teachers to the CLASS system and instruct CLASS observers in standardized administration of the measurement tool.
- Proven effective in cultivating strong relationships with 18 American Indian Head Start Pre-K teachers in New Mexico and Wisconsin, promoting effective teacher-child interactions, improved classroom organization skills, and enhanced language and literacy instruction.

Coordinator, Research Program and Services   08/11 – 08/13
Florida Institute of Education, University of North Florida, Jacksonville, Florida

- Coordinated and documented over 4000 Bracken and TOPEL assessments of at-risk three- and four-year-old children to analyze preschool, United Way, and Head Start program impact on literacy knowledge and school readiness skills.
- Conducted biannual standardized administration trainings for a team of 20 Bracken and TOPEL child assessors and reviewed collected data to ensure and maintain quality.
- Assisted in revising classroom and family engagement materials for the ELLM/Plus preschool curriculum to support emergent literacy, math, science, and social-emotional development.

Assistant Language Teacher   08/03 – 08/06
Japan Exchange and Teaching (JET) Programme, Nara, Japan

- Conducted professional development trainings at over 30 regional and national JET conferences, educating nearly 1,500 Japanese teachers of English (K-12) and international JET participants on the use of effective instructional strategies to develop English language skills.
- Served as the model teacher and faculty trainer for a K-2 initiative to introduce formal English language instruction in public elementary schools.
- Collaborated with Japanese teachers of English to team-teach innovative and creative lessons that promoted active engagement in meaningful English language conversations.

Meridian International Center, Washington, D.C.   09/99 – 06/03

MAMIE K. MORROW

Executive Director, The Hospitality and Information Service (THIS)   **09/02 – 06/03**
- Directed an international education program for the diplomatic community. Organized and supported over 300 volunteers. Effectively communicated with a culturally diverse audience.

Director, Educational Outreach Programs   **09/00 – 09/02**
- Administered the U.S. Congress—Korean National Assembly Youth Exchange Project for the U.S. Department of State. Collaborated with Korean counterparts to propose and implement innovative program improvements and cost-saving measures.
- Directed the application review process for the Japan Exchange and Teaching (JET) Programme for the Embassy of Japan. Interviewed program candidates and developed pre-departure cultural training seminars for over 50 American teachers traveling to Japan annually.
- Hired, developed, and managed a team to support multiple, fast-paced educational projects. Built team efficiency by communicating a clear sense of purpose while motivating and empowering team members through effective feedback and support.

Program Coordinator, Educational Outreach Programs   **09/99 – 09/00**
- Recruited and trained over 40 international university students and diplomats to serve as 'Cultural Ambassadors' in the D.C. Public Schools. Consulted with teachers to enhance the development of multisensory presentations designed to bring foreign cultures to life in classrooms and promote cultural awareness with over 7,000 K-12 students annually.

Professional Teaching Experience

Pre-K Teacher, San Jose Episcopal Day School, Jacksonville, Florida   **08/10 – 06/11**
Kindergarten Assistant, San Jose Episcopal Day School, Jacksonville, Florida   **08/09 – 06/10**
Pre-K Teacher, Tutor Time Learning Center, Jacksonville, Florida   **07/08 – 02/09**
Kindergarten Teacher, Peterson Elementary School, Kodiak, Alaska   **08/97 – 07/99**
Fourth Grade Interim Teacher, Price Elementary School, Agana, Guam   **08/96 – 11/96**
Pre-K Teacher, Spangdahlem Air Force Base CDC, Spangdahlem, Germany   **09/93 – 06/94**
Fourth Grade Teacher, Enchanted Hills Elementary, Rio Rancho, New Mexico   **08/92 – 06/93**

Education

University of New Mexico, Albuquerque, NM
M.A. in Elementary Education, Graduated with Distinction   **1993**
B.S. in Elementary Education, Dean's List, all semesters   **1992**

Certification

State of Florida Professional Educator's Certificate—Elementary Education, Grades K-6
Certified Pre-K and K-3 Observer and Trainer for the Classroom Assessment Scoring System (CLASS)

8.1b Resumes of Developers of Professional Development Offerings

Robert C. Pianta

Education

Ph.D., Psychology, University of Minnesota, Minneapolis, MN, 1986
M.A., Special Education, University of Connecticut, Storrs, CT, 1978
B.S., Special Education, University of Connecticut, Storrs, CT, 1978

Professional Positions

Dean, Curry School of Education, University of Virginia, Charlottesville, VA, 2007-present.
Director, National Center for Research in Early Childhood Education, University of Virginia, Charlottesville, 2006-present.
Founding Director, Center for Advanced Study of Teaching and Learning, University of Virginia, 2005-present.
Professor, Department of Psychology, College of Arts and Sciences, University of Virginia, 2005-present.
Visiting Scholar, Bernerd School of Education, University of the Pacific, Stockton, CA, October 2005-June 2006.
Professor, Department of Human Services, Curry School of Education, University of Virginia, 1997-present.
Adjunct Professor, Stavanger University College, Stavanger, Norway, 2002-2006.
Visiting Associate Professor, Institute of Child Development, University of Minnesota, 1993-1994.
Associate Professor, Curry Programs in Clinical and School Psychology, Curry School of Education, University of Virginia, 1991-1997.
Assistant Professor, Curry Programs in Clinical and School Psychology, Curry School of Education, University of Virginia, 1986-1991.
Special Education Resource Teacher, Bloomfield Middle School, Bloomfield, CT, 1978-1981.
Licensed Psychologist, Commonwealth of Virginia, 1988-2001.

Honors and Awards

Senior Scientist Award, 2014 American Psychological Association, Division 16.
Early Childhood Excellence Award, Fordham University, 2014.
Distinguished Alumnus 2014, Neag School of Education, University of Connecticut, Storrs, CT.
Article of the Year, national Association of School Psychology 2013, *Observations of effective-teacher-student interactions in secondary school classrooms: Predicting student achievement with the Classroom Assessment Scoring System-Secondary*.
One of the "Most Influential Scholars in Education Policy," RHSU Edu-Scholar Public Presence Ranking, *Education Week*, 201, 2012, 2013
One of the "Most Highly Cited Researchers of 2012," in the area of Psychology/Psychiatry, Web of Science (ISI).
Fellow, American Educational Research Association, Class of 2011.
Distinguished Alumnus Award 2007, Psychology in the Schools Training Program, University of Minnesota, Minneapolis, MN.
Distinguished Guest Lecturer, Early Childhood Education, Shanghai, China, April 2007.
Panelist, *The Health of Democracy at Home and Abroad*, The Miller Center at the University of Virginia, Charlottesville, VA, September 30, 2006.

Harris Visiting Scholar, University of Minnesota, Minneapolis, MN, May 2006.
100 Most Distinguished Alumni, College of Education and Human Development, University of Minnesota, Minneapolis, MN, 2006.
Member, Board of Advisors, Early Education Initiative, New America Foundation, Washington, DC, 2005-2006.
ASHA Editor's Award 2004, *American Journal of Speech Language Pathology*, American Speech-Language-Hearing Association.
Novartis US Foundation Professor of Education, Curry School of Education, University of Virginia, 2003-present.
Outstanding Professor of the Year 2003, Curry School of Education, University of Virginia.
William Clay Parrish, Jr. Endowed Chair, Curry School of Education, University of Virginia, 2000-2003.
Best Article Award, *Journal of School Psychology*, Society for the Study of School Psychology, 2003.
AERA Review of Research Award, American Educational Research Association, April 2002.
Lucille E. Michie Award, Curry Programs in Clinical and School Psychology, University of Virginia, 2001.
Theodore D. Tjossem Memorial Lecture, Center for Human Development and Disability, University of Washington, 1997.
Sesquicentennial Award, Center for Advanced Study, University of Virginia, 1993-1994.
Fellow, Institute on Human Development and Psychopathology, Center for Advanced Study in the Behavioral Sciences, Palo Alto, CA, Summer 1990.
Graduate School Fellowship, University of Minnesota, 1981-1982, 1985-1986.
Eva O. Miller Fellowship, University of Minnesota, 1983-1984.
University Scholar, University of Connecticut, 1976-1978.

Selected Funded Research Grants

Kinzie, M., & Pianta, R. (2012-2016). *Efficacy of MyTeachingPartner Math Science.* Washington, DC: U.S. Department of Education. $3,498,767.
Pianta, R. C., & LoCasale-Crouch, J. (2011-2012). *New Designs for Teacher Preparation in PK-3.* Los Altos, CA: The David & Lucile Packard Foundation. $50,000.
Pianta, R. C., & Hamre, B. (2011). *Measures of Effective Teaching Spring Re-Scoring.* Seattle, WA: Bill & Melinda Gates Foundation. $47,874.
Pianta, R. C. (2011-2015). *Impact Evaluation of Teacher and Leader Evaluation Systems.* Washington, DC: American Institutes for Research. $339,178.
Pianta, R. C., Downer, J., & Hamre, B. (2010-2015). *National Center on Quality Teaching and Learning.* University of Washington. $1,651,745.
Williford, A. P., & Pianta, R. C. (2010-2014). *Examining the Efficacy of Banking Time.* Washington, DC: U.S. Department of Education. $2,688,025.
Pianta, R. C. (2009-2012). *Child Care and Early Education Quality Features.* Princeton, NJ: Mathematica Policy Research. $76,601.
Pianta, R. C. (2009-2011). *Improving Child Care Quality in Virginia: An Evolution of the Star Quality Initiative.* Washington, DC: U.S. Department of Health and Human Services Administration for Children and Families. $49,871.
Pianta, R. C., & Hamre, B. (2008-2012). *Toward an Understanding of Classroom Context: A Validation Study.* Princeton, NJ: Educational Testing Service. $69,060.
Pianta, R. C., Hamre, B., Downer, J., & Mashburn, A. (2007-2008). *Empirical and Theoretical Issues in Classroom Observation.* New York: W. T. Grant Foundation. $200,000 direct costs.
Kinzie, M., & Pianta, R. C. (2007-2011). *Mathematics and Science for At-Risk Children.* Washington, DC: U.S. Department of Education. $1,772,797 direct costs.
Pianta, R. C., Justice, L., & Hamre, B. K. (2006-2012). *National Center for Research on Early Childhood Education.* U.S. Department of Education. $12,395,073.
Allen, J. P., & Pianta, R. C. (2006-2010). *Recasting the Secondary School Classroom as a Context for Positive Youth Development.* New York: W. T. Grant Foundation. $1,251,445 direct costs.
Pianta, R. C. (2006-2007). *Appalachian Regional Educational Lab/CNAC.* Washington, DC: The CNA Corporation. $191,466 direct costs.
Pianta, R. C. (2006-2007). *MyTeachingPartner Pilot in Greater Richmond.* Richmond, VA: United Way of Greater Richmond. $36,245 direct costs.

Pianta, R. C. (2006-2007). *Professional Development Training and Evaluation in Wyoming Preschools.* Cheyenne, WY: Wyoming Department of Education. $14,349 direct costs.

Pianta, R. C. (2006). *Early Educational Opportunities and Learning Outcomes in Virginia.* Richmond, VA: Virginia Department of Education. $15,000 direct costs.

Pianta, R. C. (2005-2012). *Observational assessment of young children's competence*. Washington, DC: National Institute of Child Health and Human Development. $1,662,543 direct costs.

Justice, J., Pence, K., Wiggins, A., Rimm-Kaufman, S., Fan, X., & Pianta, R. C. (2005-2008). *Efficacy of Conversational Responsiveness Preschool Intervention.* Washington, DC: U. S. Department of Education, Institute of Education Sciences. $1,400,000 direct costs.

Pianta, R. C. (2004-2007). *Standardized classroom observations from pre-k to 3rd grade: A mechanism for improving classroom quality and practices, consistency of P-3 experiences, and child outcomes.* New York: Foundation for Child Development. $200,000 direct costs.

Justice, L., Kaderavek, J., Rimm-Kaufman, S., Fan, X., Invernizzi, M., & Pianta, R. C. (2005-2009). *Print referencing efficacy.* U.S. Department of Education, Institute of Educational Sciences: Reading Scale-Up Competition. $2,299,967 direct costs. Co-Investigator.

Pianta, R. C. (2005-2007). *The NICHD Study of Early Child Care and Youth Development. Phase IV.* National Institute of Child Health and Human Development, U-10 HD 25449. $596,309 direct costs.

Pianta, R. C. (2005-2006). *Professional development training and evaluation in Wyoming preschools*. Wyoming Department of Education. $33,900 direct costs.

Pianta, R. C., & Hamre, B. (2004-2006). *APA/IES Postdoctoral Education Research Training Fellowship*. American Psychological Association, Washington, DC. $110,000 direct costs.

Pianta, R. C., Kinzie, M., Justice, L., Pullen, P., Fan, X., & Lloyd, J. (2003-2008). *Web Training: Pre-K Teachers, Literacy, and Relationships.* Effectiveness of Early Childhood Program, Curricula, and Interventions, National Institute of Child Health and Human Development. $3,717,837 direct costs.

Justice, L., Pianta, R. C., Rimm-Kaufman, S. (2003-2007). *Short- and long-term outcomes of the language-focused curriculum for Head Start children.* U.S. Department of Education, Institute of Educational Sciences. $993,763 direct costs. Co-Investigator.

Pianta, R. C. (2004-2006). *National Center for Early Development and Learning. State-Wide Early Education Program Study (SWEEP).* Subcontract to the University of North Carolina—Chapel Hill. Office of Educational Research and Improvement, U.S. Department of Education. $133,346 direct costs.

Pianta, R. C. (2004-2005). *The NICHD Study of Early Child Care and Youth Development: Phase III.* National Institute of Child Health and Human Development, U-10 HD 25449. $3,219,000 direct costs.

Pianta, R. C. (2001-2004). *National Center for Early Development and Learning.* Subcontract to the University of North Carolina—Chapel Hill. Office of Educational Research and Improvement, U.S. Department of Education. $1,288,604 direct costs.

Pianta, R. C. (1999-2004). *The NICHD Study of Early Child Care and Youth Development.* Extension of Cooperative Agreement. National Institute of Child Health and Human Development, U-10 HD 25449. $3,219,000 direct costs.

Pianta, R. C., Lloyd, J., Invernizzi, M., Justice, L., & Pullen, P. (2002-2003). *Pre-Kindergarten Curriculum: Literacy and Relationships.* Early Childhood Education and School Readiness Planning Grants, National Institutes of Health. $125,000 direct costs.

Turner, S., & Pianta, R. C. (2002-2003). *Virginia Schools and Students Longitudinal Micro Database.* Bankard Fund for Political Economy. $18,605 direct costs.

Rimm-Kaufman, S., Pianta, R. C., & La Paro, K. (2000-2002). *Effects of the Responsive Classroom Approach on children's school outcomes*. Northeast Foundation for Children. $197,000.

Lloyd, J., & Pianta, R. C. (1997-2002). *Studies on literacy skills and practices for high-risk four-year olds*. Co-Investigator, Subcontract to Center for Improvement in Early Reading Achievement, Office of Educational Research and Improvement. $120,000/year direct costs.

Pianta, R. C. (1996-2001). *Kindergarten Transitions Core.* Subcontract to National Center on Early Learning Development, University of North Carolina, Chapel Hill. Office of Educational Research and Improvement, U.S. Department of Education. $671,013 total direct costs.

Pianta, R. C. (1995-1999). *The NICHD Study of Early Child Care: Phase II.* Extension of Cooperative Agreement U-10 HD 25449. $1,829,084 direct costs.

Pianta, R. C. (1995). *The NICHD Study of Early Child Care.* Supplement to Cooperative Agreement U-10 HD 25449. $237,992 direct costs.

Pianta, R. C., & Marvin, R. S. (1992-1995). *Child-parent attachment and family relationships in young children with epilepsy.* National Institute for Disability and Rehabilitation Research. $365,000 direct costs.

Marvin, R. S., & Pianta, R. C. (1990-1993). *Attachment in children with motor impairments.* National Institute of Health. $526,000 direct costs.

Pianta, R. C. (1990-1991). *Parental and family coping patterns and their relation to adjustment in children with epilepsy.* Epilepsy Foundation of America. $16,810.

Pianta, R. C. (1989-1990). *Mother-child interaction patterns and their relation to adjustment in children with epilepsy.* Epilepsy Foundation of America. $24,635.

Pianta, R. C. (1988-1992). *Training teachers to deal with children at risk for socioemotional and behavior problems.* Commonwealth Center for Research on Teaching, Curry School of Education, University of Virginia. $40,000.

Marvin, R. S., & Pianta, R. C. (1988). *Development of attachment in children with severe cerebral palsy.* University of Virginia Medical School Small Grant. $8,000.

SCHOLARSHIP

Refereed and Reviewed Journal Articles

<u>In Press</u>
Brabeck, M. M., Dwyer, C. A., Geisinger, K. F., Marx, R. W., Noell, G. H., Pianta, R. C., . . . Worrell, F. C. (in press). Assessing the assessments of teacher preparation. *Theories into Practice,* doi:10:1080/00405841.2015.1036667

<u>Published</u>
Cash, A. H., Cabell, S. Q., Hamre, B. K., DeCoster, J., & Pianta, R. C. (2015). Relating prekindergarten teacher beliefs and knowledge to children's language and literacy development. *Teaching & Teacher Education, 48*, 97-105. doi:10.1016/j.tate.2015.02.003

Jamil, F. M., Sabol, T. J., Hamre, B. K., & Pianta, R. C. (2015). Assessing teachers' skills in detecting and identifying effective interactions in the classroom. *Elementary School Journal, 115*(3), 407-432. doi:10.1086/680353

Sabol, T. J., & Pianta, R. C. (2015). Validating Virginia's quality rating and improvement system among state-funded pre-kindergarten programs. *Early Childhood Research Quarterly, 30*, 183-198. doi:10.1016/j.ecresq.2014.03.004

Cash, A. H., Pianta, R. C., & Suldo, S. (2014). The role of scheduling in observing teacher-child interactions. *School Psychology Review, 43*(4), 428-449. doi:10.17105/SPR-13-0033.1

Gitomer, D., Bell, C., Qi, Y., McCaffrey, D., Hamre, B. K., & Pianta, R. C. (2014). The instructional challenge in improving teaching quality: Lessons from a classroom observation protocol. *Teachers College Record, 116*(6), 1-20.

Gosse, C. S., McGinty, A. S., Mashburn, A. J., Hoffman, L. M., & Pianta, R. C. (2014). The role of relational and instructional classroom supports in the language development of at-risk preschoolers. *Early Education & Development, 25*(1), 110-133. doi:10.1080/10409289.2013.778567

Gregory, A., Allen, J. P., Mikami, A. Y., Hafen, C. A., & Pianta, R. C. (2014). Effects of a professional development program on behavioral engagement of students in middle and high school. *Psychology in the Schools, 51*(2), 143-163. doi:10.1002/pits.21741

Hamre, B., Hatfield, B., Pianta, R., & Jamil, F. (2014). Evidence for general and domain-specific elements of teacher–child interactions: Associations with preschool children's development. *Child Development, 85*(3), 1257-1274. doi:10.1111/cdev.12184

Jamison, K. R., Cabell, S. Q., LoCasale-Crouch, J., Hamre, B. K., & Pianta, R. C. (2014). CLASS–Infant: An observational measure for assessing teacher–infant interactions in center-based child care. *Early Education & Development, 25*(4), 553-572. doi:10.1080/10409289.2013.822239

La Paro, K. M., Scott-Little, C., Ejimofor, A., Sumrall, T., Kintner-Duffy, V., Pianta, R. C., . . . Howes, C. (2014). Student teaching feedback and evaluation: Results from a seven-state survey. *Journal of Early Childhood Teacher Education, 35*(4), 318-336. doi:10.1080/10901027.2014.968297

Mashburn, A. J., Meyer, J. P., Allen, J. P., & Pianta, R. C. (2014). The effect of observation length and presentation order on the reliability and validity of an observational measure of teaching quality. *Educational and Psychological Measurement, 74*(3), 400-422. doi:10.1177/0013164413515882

Pianta, R. C., Burchinal, M., Jamil, F. M., Sabol, T., Grimm, K., Hamre, B. K., . . . Howes, C. (2014). A cross-lag analysis of longitudinal associations between preschool teachers' instructional support identification skills and observed behavior. *Early Childhood Research Quarterly, 29*(2), 144-154. doi:10.1016/j.ecresq.2013.11.006

Pianta, R. C., DeCoster, J., Cabell, S., Burchinal, M., Hamre, B. K., Downer, J., . . . Howes, C. (2014). Dose–response relations between preschool teachers' exposure to components of professional development and increases in quality of their interactions with children. *Early Childhood Research Quarterly, 29*(4), 499-508. doi:10.1016/j.ecresq.2014.06.001

Roorbach Jamison, K., Cabell, S. Q., LoCasale-Crouch, J., Hamre, B. K., & Pianta, R. C. (2014). CLASS–Infant: An observational measure for assessing teacher–infant interactions in center-based child care. *Early Education and Development, 25*(4), 553-572. doi:10.1080/10409289.2013.822239

Sabol, T. J., & Pianta, R. C. (2014). Do standard measures of preschool quality used in statewide policy predict school readiness? *Education Finance and Policy, 9*(2), 116-164. doi:10.1162/EDFP_a_00127

Allen, J., Gregory, A., Mikami, A., Lun, J., Hamre, B., & Pianta, R. (2013). Observations of effective teacher-student interactions in secondary school classrooms: Predicting student achievement with the Classroom Assessment Scoring System—Secondary. *School Psychology Review, 42*(1), 76-98.

Cabell, S. Q., DeCoster, J., LoCasale-Crouch, J., Hamre, B. K., & Pianta, R. C. (2013). Variation in the effectiveness of instructional interactions across preschool classroom settings and learning activities. *Early Childhood Research Quarterly, 28*(4), 820-830. doi:10.1016/j.ecresq.2013.07.007

Casabianca, J. M., McCaffrey, D. F., Gitomer, D. H., Bell, C. A., Hamre, B. K., & Pianta, R. C. (2013). Effect of observation mode on measures of secondary mathematics teaching. *Educational and Psychological Measurement, 73*(5), 757-783. doi:10.1177/0013164413486987

Dotterer, A. M., Burchinal, M., Bryant, D., Early, D., & Pianta, R. C. (2013). Universal and targeted pre-kindergarten programmes: A comparison of classroom characteristics and child outcomes. *Early Child Development & Care, 183*(7), 931-950. doi:10.1080/03004430.2012.698388

Hamre, B. K., Pianta, R. C., Downer, J. T., DeCoster, J., Mashburn, A. J., Jones, S. M., . . . Hamagami, A. (2013). Teaching through interactions: Testing a developmental framework of teacher effectiveness in over 4,000 classrooms. *Elementary School Journal, 113*(4), 461-487. doi:10.1086/669616

Sabol, T. J., Hong, S. L., Pianta, R. C., & Burchinal, M. R. (2013). Can rating pre-k programs predict children's learning? *Science, 341*(6148), 845-846. doi:10.1126/science.1233517

Williford, A. P., Maier, M. F., Downer, J. T., Pianta, R. C., & Howes, C. (2013). Understanding how children's engagement and teachers' interactions combine to predict school readiness. *Journal of Applied Developmental Psychology, 34*(6), 299-309. doi:10.1016/j.appdev.2013.05.002

Bell, C. A., Gitomer, D. H., McCaffrey, D. F., Hamre, B. K., Pianta, R. C., & Qi, Y. (2012). An argument approach to observation protocol validity. *Educational Assessment, 17*(2-3), 62-87. doi:10.1080/10627197.2012.715014

Burchinal, M., Field, S., López, M. L., Howes, C., & Pianta, R. (2012). Instruction in Spanish in pre-kindergarten classrooms and child outcomes for English language learners. *Early Childhood Research Quarterly, 27*, 188-197. doi:10.1016/j.ecresq.2011.11.003

Cash, A. H., Hamre, B. K., Pianta, R. C., & Myers, S. S. (2012). Rater calibration when observational assessment occurs at large scale: Degree of calibration and characteristics of raters associated with calibration. *Early Childhood Research Quarterly, 27*(3), 529-542. doi: 10.1016/j.ecresq.2011.12.006

Downer, J. T., Lopez, M. L., Grimm, K., Hamagami, A., Pianta, R. C., & Howes, C. (2012). Observations of teacher-child interactions in classrooms serving Latinos and dual language learners: Applicability of the classroom assessment scoring system in diverse settings. *Early Childhood Research Quarterly, 27*, 21-32. doi:10.1016/j.ecresq.2011.07.005

Hafen, C. A., Allen, J. P., Mikami, A. Y., Gregory, A., Hamre, B., & Pianta, R. C. (2012). The pivotal role of adolescent autonomy in secondary school classrooms. *Journal of Youth and Adolescence, 41*, 245-255. doi:10.1007/s10964-011-9739-2

Hamre, B. K., Pianta, R. C., Burchinal, M., Field, S., LoCasale-Crouch, J. L., Downer, J. T., Howes, C., LaParo, K., & Scott-Little, C. (2012). A course on effective teacher-child interactions: Effects on teacher beliefs, knowledge, and observed practice. *American Educational Research Journal, 49*(1), 88-123. doi:10.3102/0002831211434596

Hamre, B. K., Pianta, R. C., Mashburn, A. J., & Downer, J. T. (2012). Promoting young children's social competence through the preschool PATHS curriculum and MyTeachingPartner professional development resources. *Early Education and Development, 23*(6), 809-832. doi: 10.1080/10409289.2011.607360

Jamil, F. M., Downer, J. T., & Pianta, R. C. (2012). Associations of pre-service teachers' performance, personality, and beliefs with teacher self-efficacy at program completion. *Teacher Education Quarterly, 39*(4), 119-138.

Koomen, H. M. Y., Verschueren, K., van Schooten, E., Jak, S., & Pianta, R. C. (2012). Validating the student-teacher relationship scale: Testing factor structure and measurement invariance across child gender and age in a Dutch sample. *Journal of School Psychology, 50*(2), 215-234. doi:10.1016/j.jsp.2011.09.001

LoCasale-Crouch, J., Davis, E., Wiens, P., & Pianta, R. (2012). The role of the mentor in supporting new teachers: Associations with self-efficacy, reflection, and quality. *Mentoring & Tutoring: Partnership in Learning, 20*(3), 303-323. doi:10.1080/13611267.2012.701959

Pianta, R. C. (2012). Commentary: The Early Childhood Care and Education Workforce. *Social Policy Report, SRCD.*

Sabol, T. J., & Pianta, R. C. (2012). Patterns of school readiness forecast achievement and socioemotional development at the end of elementary school. *Child Development, 83*(1), 282-299. doi:10.1111/j.1467-8624.2011.01678.x

Sabol, T. J., & Pianta, R. C. (2012). Recent trends in research on teacher-child relationships. *Attachment and Human Development. 14*(3), 213-231. doi:10.1080/14616734.2012.672262.

Allen, J. P., Pianta, R. C., Gregory, A., Mikami, A. Y., & Lun, J. (2011). An interaction-based approach to enhancing secondary school instruction and student achievement. *Science, 333*(6045), 1034-1037. doi:10.1126/science.1207998

Curby, T. W., Stuhlman, M., Grimm, K., Mashburn, A., Chomat-Mooney, L., Downer, J., . . . Pianta, R. C. (2011). Within-day variability in the quality of classroom interactions during third and fifth grade. *Elementary School Journal, 112*(1), 16-37. doi:10.1086/660682

Downer, J., T., Pianta, R. C., Fan, X., Hamre, B. K., Mashburn, A., & Justice, L. (2011). Effects of web-mediated teacher professional development on the language and literacy skills of children enrolled in prekindergarten programs. *NHSA Dialog: Research-to-Practice Journal for the Early Childhood Field, 14*(4), 189-212. doi:10.1080/15240754.2011.613129

Driscoll, K. C., Mashburn, A. J., Wang, L., & Pianta, R. C. (2011). Fostering supportive Teacher–Child relationships: Intervention implementation in a state-funded preschool program. *Early Education and Development, 22*(4), 593-619. doi:10.1080/10409289.2010.502015

Driscoll, K., & Pianta, R. C. (2011). Mothers' and fathers' perceptions of conflict and closeness in parent-child relationships during early childhood. *Journal of Early Childhood & Infant Psychology*, (7), 1-24.

Jacobson, L. A., Williford, A. P., & Pianta, R. C. (2011). The role of executive function in children's competent adjustment to middle school. *Child Neuropsychology, 17*(3), 255-280. doi:10.1080/09297049.2010.535654

LoCasale-Crouch, J., Kraft-Sayre, M., Pianta, R. C., Hamre, B. K., Downer, J. T., Leach, A., . . . Scott-Little, C. (2011). Implementing an early childhood professional development course across 10 sites and 15 sections: Lessons learned. *NHSA Dialog, 14*(4), 275-292. doi:10.1080/15240754.2011.617527

Luckner, A. E., & Pianta, R. C. (2011). Teacher-student interactions in fifth grade classrooms: Relations with children's peer behavior. *Journal of Applied Developmental Psychology, 32*(5), 257-266. doi:10.1016/j.appdev.2011.02.010

Mikami, A. Y., Gregory, A., Allen, J. P., Pianta, R. C., & Lun, J. (2011). Effects of a teacher professional development intervention on peer relationships in secondary classrooms. *School Psychology Review, 40*(3), 367-385.

Scott-Little, C., La Paro, K. M., Thomason, A. C., Pianta, R. C., Hamre, B., Downer, J., . . . Howes, C. (2011). Implementation of a course focused on language and literacy within Teacher–Child interactions: Instructor and student perspectives across three institutions of higher education. *Journal of Early Childhood Teacher Education*, 32(3), 200-224. doi:10.1080/10901027.2011.59448

Burchinal, M., Vandergrift, N., Pianta, R., & Mashburn, A. (2010). Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. *Early Childhood Research Quarterly, 25*(2), 166-176. doi:10.1016/j.ecresq.2009.10.004

Chien, N. C., Howes, C., Burchinal, M., Pianta, R. C., Ritchie, S., Bryant, D. M., . . . Barbarin, O. A. (2010). Children's classroom engagement and school readiness gains in prekindergarten. *Child Development, 81*(5), 1534-1549. doi:10.1111/j.1467-8624.2010.01490.x

Crosnoe, R., Leventhal, T., Wirth, R. J., Pierce, K. M., & Pianta, R. C. (2010). Family socioeconomic status and consistent environmental stimulation in early childhood. *Child Development, 81*(3), 972-987. doi:10.1111/j.1467-8624.2010.01446.x

Crosnoe, R., Morrison, F., Burchinal, M., Pianta, R., Keating, D., Friedman, S. L., & Clarke-Stewart, K. (2010). Instruction, teacher–student relations, and math achievement trajectories in elementary school. *Journal of Educational Psychology, 102*(2), 407-417. doi:10.1037/a0017762

Curby, T. W., Grimm, K. J., & Pianta, R. C. (2010). Stability and change in early childhood classroom interactions during the first two hours of a day. *Early Childhood Research Quarterly, 25*(3), 373-384. doi:10.1016/j.ecresq.2010.02.004

Downer, J. T., Booren, L. M., Lima, O. K., Luckner, A. E., & Pianta, R. C. (2010). The individualized classroom assessment scoring system (inCLASS): Preliminary reliability and validity of a system for observing preschoolers' competence in classroom interactions. *Early Childhood Research Quarterly, 25*(1), 1-16. doi:10.1016/j.ecresq.2009.08.004

Driscoll, K. C., & Pianta, R. C. (2010). Banking time in Head Start: Early efficacy of an intervention designed to promote supportive Teacher–Child relationships. *Early Education & Development, 21*(1), 38-64. doi:10.1080/10409280802657449

Early, D. M., Iruka, I. U., Ritchie, S., Barbarin, O. A., Winn, D. C., Crawford, G. M., . . . Pianta, R. C. (2010). How do pre-kindergarteners spend their time? Gender, ethnicity, and income as predictors of experiences in pre-kindergarten classrooms. *Early Childhood Research Quarterly, 25*(2), 177-193. doi:10.1016/j.ecresq.2009.10.003

Grimm, K. J., Steele, J. S., Mashburn, A. J., Burchinal, M., & Pianta, R. C. (2010). Early behavioral associations of achievement trajectories. *Developmental Psychology, 46*(5), 976-983. doi:10.1037/a0018878

Hamre, B. K., Justice, L. M., Pianta, R. C., Kilday, C., Sweeney, B., Downer, J. T., & Leach, A. (2010). Implementation fidelity of MyTeachingPartner literacy and language activities: Association with preschoolers' language and literacy growth. *Early Childhood Research Quarterly, 25*(3), 329-347. doi:10.1016/j.ecresq.2009.07.002

Houts, R. M., Caspi, A., Pianta, R. C., Arseneault, L., & Moffitt, T. E. (2010). The challenging pupil in the classroom: The effect of the child on the teacher. *Psychological Science, 21*(12), 1802-1810. doi:10.1177/0956797610388047

Mashburn, A. J., Downer, J. T., Hamre, B. K., Justice, L. M., & Pianta, R. C. (2010). Consultation for teachers and children's language and literacy development during pre-kindergarten. *Applied Developmental Science, 14*(4), 179-196. doi:10.1080/10888691.2010.516187

O'Brien, R. H., & Pianta, R. C. (2010). Public and private schools: Do classroom processes vary by school type? *Elementary School Journal, 110*(3), 409-419. doi:10.1086/648984

Curby, T. W., LoCasale-Crouch, J., Konold, T. R., Pianta, R. C., Howes, C., Burchinal, M., . . . Barbarin, O. (2009). The relations of observed pre-k classroom quality profiles to children's achievement and social competence. *Early Education and Development, 20*(2), 346-372. doi:10.1080/10409280802581284

Downer, J. T., Kraft-Sayre, M., & Pianta, R. C. (2009). Ongoing, web-mediated professional development focused on teacher-child interactions: Early childhood educators' usage rates and self-reported satisfaction. *Early Education and Development, 20*(2), 321-345. doi:10.1080/10409280802595425

Downer, J. T., Locasale-Crouch, J., Hamre, B., & Pianta, R. (2009). Teacher characteristics associated with responsiveness and exposure to consultation and online professional development resources. *Early Education and Development, 20*(3), 431-455. doi:10.1080/10409280802688626

Grimm, K. J., Pianta, R. C., & Konold, T. (2009). Longitudinal multitrait-multimethod models for developmental research. *Multivariate Behavioral Research, 44*(2), 233-258. doi:10.1080/00273170902794230

Jerome, E. M., Hamre, B. K., & Pianta, R. C. (2009). Teacher—child relationships from kindergarten to sixth grade: Early childhood predictors of teacher-perceived conflict and closeness. *Social Development, 18*(4), 915-945. doi:10.1111/j.1467-9507.2008.00508.x

La Paro, K. M., Hamre, B. K., Locasale-Crouch, J., Pianta, R. C., Bryant, D., Early, D., . . . Burchinal, M. (2009). Quality in kindergarten classrooms: Observational evidence for the need to increase

children's learning opportunities in early education classrooms. *Early Education and Development, 20*(4), 657-692. doi:10.1080/10409280802541965

Mashburn, A. J., Justice, L. M., Downer, J. T., & Pianta, R. C. (2009). Peer effects on children's language achievement during pre-kindergarten. *Child Development, 80*(3), 686-702. doi:10.1111/j.1467-8624.2009.01291.x

Pianta, R. (2009). Contemporary challenges and opportunities in schools of education: Why I became a dean. *Journal of Curriculum & Pedagogy, 6*(2), 46-47. doi:10.1080/15505170.2009.10411739

Pianta, R. C., Barnett, W. S., Burchinal, M., & Thornburg, K. R. (2009). The effects of preschool education: What we know, how public policy is or is not aligned with the evidence base, and what we need to know. *Psychological Science in the Public Interest, 10*, 49-88. doi:10.1177/1529100610381908

Pianta, R. C., & Hamre, B. K. (2009). A lot of students and their teachers need support: Using a common framework to observe teacher practices might help. *Educational Researcher, 38*(7), 546-548. doi:10.3102/0013189X09348786

Pianta, R. C., & Hamre, B. K. (2009). Classroom processes and positive youth development: Conceptualizing, measuring, and improving the capacity of interactions between teachers and students. *New Directions for Youth Development,* (121), 33-46. doi:10.1002/yd.295

Pianta, R. C., & Hamre, B. K. (2009). Conceptualization, measurement, and improvement of classroom processes: Standardized observation can leverage capacity. *Educational Researcher, 38*(2), 109-119. doi:10.3102/0013189X09332374

Stuhlman, M. W., & Pianta, R. C. (2009). Profiles of educational quality in first grade. *Elementary School Journal, 109*(4), 323-342. doi:10.1086/593936

Barbarin, O. A., Early, D., Clifford, R., Bryant, D., Frome, P., Burchinal, M., . . . Pianta, R. (2008). Parental conceptions of school readiness: Relation to ethnicity, socioeconomic status, and children's skills. *Early Education and Development, 19*(5), 671-701. doi:10.1080/10409280802375257

Burchinal, M., Howes, C., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Predicting child outcomes at the end of kindergarten from the quality of pre-kindergarten teacher-child interactions and instruction. *Applied Developmental Science, 12*(3), 140-153. doi:10.1080/10888690802199418

Early, D. M., Maxwell, K. L., Clifford, R. M., Pianta, R. C., Ritchie, S., Howes, C., . . . Barbarin, O. (2008). Teacher education and child outcomes: A reply to the commentary. *Early Childhood Research Quarterly, 23*(1), 7-9. doi:10.1016/j.ecresq.2007.08.003

Hamre, B. K., Pianta, R. C., Downer, J. T., & Mashburn, A. J. (2008). Teachers' perceptions of conflict with young students: Looking beyond problem behaviors. *Social Development, 17*(1), 115-136.

Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-Kindergarten programs. *Early Childhood Research Quarterly. 23*(1), 27-50. doi:10.1016/j.ecresq.2007.05.002

Justice, L. M., Mashburn, A. J., Hamre, B. K., & Pianta, R. C. (2008). Quality of language and literacy instruction in preschool classrooms serving at-risk pupils. *Early Childhood Research Quarterly, 23*(1), 51-68. doi:10.1016/j.ecresq.2007.09.004

LoCasale-Crouch, J., Mashburn, A. J., Downer, J. T., & Pianta, R. C. (2008). Pre-kindergarten teachers' use of transition practices and children's adjustment to kindergarten. *Early Childhood Research Quarterly, 23*(1), 124-139. doi:10.1016/j.ecresq.2007.06.001

Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., . . . Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*(3), 732-749. doi:10.1111/j.1467-8624.2008.01154.x

Myers, S. S., & Pianta, R. C. (2008). Developmental commentary: Individual and contextual influences on student-teacher relationships and children's early problem behaviors. *Journal of Clinical Child and Adolescent Psychology, 37*(3), 600-608. doi:10.1080/15374410802148160

Pianta, R. C., Belsky, J., Vandergrift, N., Houts, R., & Morrison, F. J. (2008). Classroom effects on children's achievement trajectories in elementary school. *American Educational Research Journal, 45*(2), 365-397. doi:10.3102/0002831207308230

Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., & Justice, L. (2008). Effects of web-mediated professional development resources on teacher–child interactions in pre-kindergarten classrooms. *Early Childhood Research Quarterly, 23*(4), 431-451. doi:10.1016/j.ecresq.2008.02.001

Chang, F., Crawford, G., Early, D., Bryant, D., Howes, C., Burchinal, M., . . . Pianta, R. (2007). Spanish-speaking children's social and language development in pre-kindergarten classrooms. *Early Education and Development, 18*(2), 243-269. doi:10.1080/10409280701282959

Clingenpeel, B. T., & Pianta, R. C. (2007). Mothers' sensitivity and book-reading interactions with first graders. *Early Education and Development, 18*(1), 1-22. doi:10.1080/10409280701274345

Downer, J. T., Rimm-Kaufman, S., & Pianta, R. C. (2007). How do classroom conditions and children's risk for school problems contribute to children's behavioral engagement in learning? *School Psychology Review, 36*(3), 413-432.

Early, D. M., Maxwell, K. L., Burchinal, M., Alva, S., Bender, R. H., Bryant, D., . . . Zill, N. (2007). Teachers' education, classroom quality, and young children's academic skills: Results from seven studies of preschool programs. *Child Development, 78*(2), 558-580. doi:10.1111/j.1467-8624.2007.01014.x

Konold, T. R., & Pianta, R. C. (2007). The influence of informants on ratings of children's behavioral functioning: A latent variable approach. *Journal of Psychoeducational Assessment, 25*(3), 222-236. doi:10.1177/0734282906297784

LoCasale-Crouch, J., Konold, T., Pianta, R., Howes, C., Burchinal, M., Bryant, D., . . . Barbarin, O. (2007). Observed classroom quality profiles in state-funded pre-kindergarten programs and associations with teacher, program, and classroom characteristics. *Early Childhood Research Quarterly, 22*(1), 3-17. doi:10.1016/j.ecresq.2006.05.001

Murray, C., & Pianta, R. C. (2007). The importance of teacher-student relationships for adolescents with high incidence disabilities. *Theory into Practice, 46*(2), 105-112. doi:10.1080/00405840701232943

Pianta, R. C. (2007). Preschool is school, sometimes: Making early childhood education matter. *Education Next, 7*(1), 44-49.

Pianta, R. C., Belsky, J., Houts, R., & Morrison, F. (2007). Opportunities to learn in America's elementary classrooms. *Science, 315*(5820), 1795-1796. doi:10.1126/science.1139719

Whitaker, S., Kinzie, M., Kraft-Sayre, M., Mashburn, A., & Pianta, R. C. (2007). Use and evaluation of web-based professional development services across participant levels of support. *Early Childhood Education Journal, 34*(6), 379-386. doi:10.1007/s10643-006-0142-7

Wilson, H. K., Pianta, R. C., & Stuhlman, M. (2007). Typical classroom experiences in first grade: The role of classroom climate and functional risk in the development of social competencies. *Elementary School Journal, 108*(2), 81-96. doi:10.1086/525548

Barbarin, O., Bryant, D., McCandies, T., Burchinal, M., Early, D., Clifford, R., . . . Howes, C. (2006). Children enrolled in public pre-k: The relation of family life, neighborhood quality, and socioeconomic resources to early competence. *American Journal of Orthopsychiatry, 76*(2), 265-276. doi:10.1037/0002-9432.76.2.265

Barbarin, O. A., McCandies, T., Early, D., Clifford, R. M., Bryant, D., Burchinal, M., . . . Pianta, R. (2006). Quality of prekindergarten: What families are looking for in public sponsored programs. *Early Education and Development, 17*(4), 619-642. doi:10.1207/s15566935eed1704_6

Downer, J. T., & Pianta, R. C. (2006). Academic and cognitive functioning in first grade: Associations with earlier home and child care predictors and with concurrent home and classroom experiences. *School Psychology Review, 35*(1), 11-30.

Early, D. M., Bryant, D. M., Pianta, R. C., Clifford, R. M., Burchinal, M. R., Ritchie, S., . . . Barbarin, O. (2006). Are teachers' education, major, and credentials related to classroom quality and children's academic gains in pre-kindergarten? *Early Childhood Research Quarterly, 21*(2), 174-195. doi:10.1016/j.ecresq.2006.04.004

Hadden, D. S., & Pianta, R. C. (2006). MyTeachingPartner: An innovative model of professional development. *Young Children, 61*(2), 42-43.

Kinzie, M. B., Whitaker, S. D., Neesen, K., Kelley, M., Matera, M., & Pianta, R. C. (2006). Innovative web-based professional development for teachers of at-risk preschool children. *Educational Technology & Society, 9*(4), 194-204.

La Paro, K. M., Rimm-Kaufman, S. E., & Pianta, R. C. (2006). Kindergarten to 1st grade: Classroom characteristics and the stability and change of children's classroom experiences. *Journal of Research in Childhood Education, 21*(2), 189-202. doi:10.1080/02568540609594588

Mashburn, A. J., Hamre, B. K., Downer, J. T., & Pianta, R. C. (2006). Teacher and classroom characteristics associated with teachers' ratings of prekindergartners' relationships and behaviors. *Journal of Psychoeducational Assessment, 24*(4), 367-380. doi:10.1177/0734282906290594

Mashburn, A. J., & Pianta, R. C. (2006). Social relationships and school readiness. *Early Education and Development, 17*(1), 151-176. doi:10.1207/s15566935eed1701_7

Nader, P. R., O'Brien, M., Houts, R., Bradley, R., Belsky, J., Crosnoe, R., . . . Susman, E. J. (2006). Identifying risk for obesity in early childhood. *Pediatrics, 118*(3), e594-e601. doi:10.1542/peds.2005-2801

Rimm-Kaufman, S., Storm, M. D., Sawyer, B. E., Pianta, R. C., & LaParo, K. M. (2006). The teacher belief Q-sort: A measure of teachers' priorities in relation to disciplinary practices, teaching practices, and beliefs about children. *Journal of School Psychology, 44*(2), 141-165. doi:10.1016/j.jsp.2006.01.003

Biringen, Z., Skillern, S., Mone, J., & Pianta, R. (2005). Biringen, Z., Skillern, S., Mone, J., & Pianta, R. (2005). Emotional availability is predictive of the emotional aspects of children's "school readiness". *Journal of Early Childhood and Infant Psychology, 1*, 81-97.

Britner, P. A., Marvin, R. S., & Pianta, R. C. (2005). Development and preliminary validation of the caregiving behavior system: Association with child attachment classification in the preschool strange situation. *Attachment & Human Development, 7*(1), 83-102. doi:10.1080/14616730500039861

Clifford, R. M., Barbarin, O., Chang, F., Early, D., Bryant, D., Howes, C., . . . Pianta, R. (2005). What is pre-kindergarten? characteristics of public pre-kindergarten programs. *Applied Developmental Science, 9*(3), 126-143. doi:10.1207/s1532480xads0903_1

Hamre, B. K., & Pianta, R. C. (2005). Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Development, 76*(5), 949-967. doi:10.1111/j.1467-8624.2005.00889.x

Konold, T. R., & Pianta, R. C. (2005). Empirically-derived, person-oriented patterns of school readiness in typically-developing children: Description and prediction to first-grade achievement. *Applied Developmental Science, 9*(4), 174-187. doi:10.1207/s1532480xads0904_1

Pianta, R., Howes, C., Burchinal, M., Bryant, D., Clifford, R., Early, D., & Barbarin, O. (2005). Features of pre-kindergarten programs, classrooms, and teachers: Do they predict observed classroom quality and child-teacher interactions? *Applied Developmental Science, 9*(3), 144-159. doi:10.1207/s1532480xads0903_2

Rimm-Kaufman, S., La Paro, K. M., Downer, J. T., & Pianta, R. C. (2005). The contribution of classroom setting and quality of instruction to children's behavior in kindergarten classrooms. *Elementary School Journal, 105*(4), 377-394. doi:10.1086/429948

Rimm-Kaufman, S., & Pianta, R. C. (2005). Family-school communication in preschool and kindergarten in the context of a relationship-enhancing intervention. *Early Education and Development, 16*(3), 287-316. doi:10.1207/s15566935eed1603_1

Walthall, J. C., Konold, T. R., & Pianta, R. C. (2005). Factor structure of the social skills rating system across child gender and ethnicity. *Journal of Psychoeducational Assessment, 23*(3), 201-215. doi:10.1177/073428290502300301

Hamre, B. K., & Pianta, R. C. (2004). Self-reported depression in nonfamilial caregivers: Prevalence and associations with caregiver behavior in child-care settings. *Early Childhood Research Quarterly, 19*(2), 297-318. doi:10.1016/j.ecresq.2004.04.006

Konold, T. R., Walthall, J. C., & Pianta, R. C. (2004). The behavior of child behavior ratings: Measurement structure of the child behavior checklist across time, informants, and child gender. *Behavioral Disorders, 29*(4), 372-383.

La Paro, K. M., Justice, L., Skibbe, L. E., & Pianta, R. C. (2004). Relations among maternal, child, and demographic factors and the persistence of preschool language impairment. *American Journal of Speech-Language Pathology, 13*(4), 291-303. doi:10.1044/1058-0360(2004/030)

La Paro, K. M., Pianta, R. C., & Stuhlman, M. (2004). The Classroom Assessment Scoring System: Findings from the prekindergarten year. *Elementary School Journal, 104*(5), 409-426. doi:10.1086/499760

Pianta, R. C., & Stuhlman, M. W. (2004). Conceptualizing risk in relational terms: Associations among the quality of child-adult relationships prior to school entry and children's developmental outcomes in first grade. *Educational and Child Psychology, 21*(1), 32-45.

Pianta, R. C., & Stuhlman, M. W. (2004). Teacher-child relationships and children's success in the first years of school. *School Psychology Review, 33*(3), 444-458.

Britner, P. A., Morog, M. C., Pianta, R. C., & Marvin, R. S. (2003). Stress and coping: A comparison of self-report measures of functioning in families of young children with cerebral palsy or no medical diagnosis. *Journal of Child and Family Studies, 12*(3), 335-348. doi:10.1023/A:1023943928358

Konold, T. R., Hamre, B. K., & Pianta, R. C. (2003). Measuring problem behaviors in young children. *Behavioral Disorders, 28*(2), 111-123.

La Paro, K. M., Kraft-Sayre, M., & Pianta, R. C. (2003). Preschool to kindergarten transition activities: Involvement and satisfaction of families and teachers. *Journal of Research in Childhood Education, 17*(2), 147-158. doi:10.1080/02568540309595006

Morrison, E. F., Rimm-Kauffman, S., & Pianta, R. C. (2003). A longitudinal study of mother-child interactions at school entry and social and academic outcomes in middle school. *Journal of School Psychology, 41*(3), 185-200. doi:10.1016/S0022-4405(03)00044-X

Pianta, R. C. (2003). Commentary: Implementation, sustainability, and scaling up in school contexts: Can school psychology make the shift? *School Psychology Review, 32*(3), 331-335.

Pianta, R. C., & La Paro, K. (2003). Improving early school success. *Educational Leadership, 60*(7), 24-29.

Rimm-Kaufman, S., Pianta, R. C., Cox, M. J., & Bradley, R. H. (2003). Teacher-rated family involvement and children's social and academic outcomes in kindergarten. *Early Education and Development, 14*(2), 179-198. doi:10.1207/s15566935eed1402_3

Burchinal, M. R., Peisner-Feinberg, E., Pianta, R., & Howes, C. (2002). Development of academic skills from preschool through second grade: Family and classroom predictors of developmental trajectories. *Journal of School Psychology, 40*(5), 415-436. doi:10.1016/S0022-4405(02)00107-3

Early, D. M., Rimm-Kaufman, S., Cox, M. J., Saluja, G., Pianta, R. C., Bradley, R. H., & Payne, C. C. (2002). Maternal sensitivity and child wariness in the transition to kindergarten. *Parenting: Science and Practice, 2*(4), 355-377. doi:10.1207/S15327922PAR0204_02

La Paro, K. M., Olsen, K., & Pianta, R. C. (2002). Special education eligibility: Developmental precursors over the first three years of life. *Exceptional Children, 69*(1), 55-66.

Olrick, J. T., Pianta, R. C., & Marvin, R. S. (2002). Mother's and father's responses to signals of children with cerebral palsy during feeding. *Journal of Developmental and Physical Disabilities, 14*(1), 1-17. doi:10.1023/A:1013537528167

Pianta, R. C., La Paro, K. M., Payne, C., Cox, M. J., & Bradley, R. (2002). The relation of kindergarten classroom environment to teacher, family, and school characteristics and child outcomes. *Elementary School Journal, 102*(3), 225-238. doi:10.1086/499701

Rimm-Kaufman, S., Early, D. M., Cox, M. J., Saluja, G., Pianta, R. C., Bradley, R. H., & Payne, C. (2002). Early behavioral attributes and teachers' sensitivity as predictors of competent behavior in the kindergarten classroom. *Journal of Applied Developmental Psychology, 23*(4), 451-470. doi:10.1016/S0193-3973(02)00128-4

Sbarra, D. A., Rimm-Kaufman, S., & Pianta, R. C. (2002). The behavioral and emotional correlates of epilepsy in adolescence: A 7-year follow-up study. *Epilepsy & Behavior, 3*(4), 358-367. doi:10.1016/S1525-5050(02)00035-5

Stuhlman, M. W., & Pianta, R. C. (2002). Teachers' narratives about their relationships with children: Associations with behavior in classrooms. *School Psychology Review, 31*(2), 148-163.

Button, S., Pianta, R. C., & Marvin, R. S. (2001). Partner support and maternal stress in families raising young children with cerebral palsy. *Journal of Developmental and Physical Disabilities, 13*(1), 61-81. doi:10.1023/A:1026509400487

Button, S., Pianta, R. C., & Marvin, R. S. (2001). Mothers' representations of relationships with their children: Relations with parenting behavior, mother characteristics, and child disability status. *Social Development, 10*(4), 455-472. doi:10.1111/1467-9507.00175

Early, D. M., Pianta, R. C., Taylor, L. C., & Cox, M. J. (2001). Transition practices: Findings from a national survey of kindergarten teachers. *Early Childhood Education Journal, 28*(3), 199-206. doi:10.1023/A:1026503520593

Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development, 72*(2), 625-638. doi:10.1111/1467-8624.00301

Kraft-Sayre, M., & Pianta, R. C. (2001). Enhancing the transition to kindergarten: Connecting families and elementary schools. *Dimensions of Early Childhood, 29*(1), 25-29.

Pianta, R. C., & Early, D. (2001). Turnover in kindergarten classroom membership in a national sample. *Early Education and Development, 12*(2), 239-252. doi:10.1207/s15566935eed1202_5

Pianta, R. C., Kraft-Sayre, M., Rimm-Kaufman, S., Gercke, N., & Higgins, T. (2001). Collaboration in building partnerships between families and schools: The national center for early development and learning's kindergarten transition intervention. *Early Childhood Research Quarterly, 16*(1), 117-32. doi:10.1016/S0885-2006(01)00089-8

Saft, E. W., & Pianta, R. C. (2001). Teachers' perceptions of their relationships with students: Effects of child age, gender, and ethnicity of teachers and children. *School Psychology Quarterly, 16*(2), 125-141. doi:10.1521/scpq.16.2.125.18698

Sayre, J. M., Pianta, R. C., Marvin, R. S., & Saft, E. W. (2001). Mothers' representations of relationships with their children: Relations with mother characteristics and feeding sensitivity. *Journal of Pediatric Psychology, 26*(6), 375-384. doi:10.1093/jpepsy/26.6.375

Sbarra, D. A., & Pianta, R. C. (2001). Teacher ratings of behavior among African American and Caucasian children during the first two years of school. *Psychology in the Schools, 38*(3), 229-238. doi:10.1002/pits.1013

La Paro, K. M., & Pianta, R. C. (2000). Predicting children's competence in the early school years: A meta-analytic review. *Review of Educational Research, 70*(4), 443-484. doi:10.3102/00346543070004443

La Paro, K. M., Pianta, R., & Cox, M. (2000). Kindergarten teachers' reported use of kindergarten to first grade transition practices. *Elementary School Journal, 101*(1), 63-78. doi:10.1086/499659

La Paro, K. M., Pianta, R. C., & Cox, M. J. (2000). Teachers' reported transition practices for children transitioning into kindergarten and first grade. *Exceptional Children, 67*(1), 7-20.

Pianta, R. C. (2000). Commentary: Sheridan and Gutkin's vision of the future: Information will help us get there. *School Psychology Review, 29*(4), 503-504.

Rimm-Kaufman, S., & Pianta, R. C. (2000). An ecological perspective on the transition to kindergarten: A theoretical framework to guide empirical research. *Journal of Applied Developmental Psychology, 21*(5), 491-511. doi:10.1016/S0193-3973(00)00051-4

Rimm-Kaufman, S., Pianta, R. C., & Cox, M. J. (2000). Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly, 15*(2), 147-166. doi:10.1016/S0885-2006(00)00049-1

Welch, K., Pianta, R. C., Marvin, R. S., & Saft, E. W. (2000). Feeding interactions for children with cerebral palsy: Contributions of mothers' psychological state and children's skills and abilities *Journal of Developmental & Behavioral Pediatrics, 21*(2), 123-129. doi:10.1097/00004703-200004000-00006

Early, D. M., Pianta, R. C., & Cox, M. J. (1999). Kindergarten teachers and classrooms: A transition context. *Early Education and Development, 10*(1), 25-46. doi:10.1207/s15566935eed1001_3

Pianta, R. C., Cox, M. J., Taylor, L., & Early, D. (1999). Kindergarten teachers' practices related to the transition to school: Results of a national survey. *Elementary School Journal, 100*(1), 71-86. doi:10.1086/461944

Pianta, R. C., & Kraft-Sayre, M. (1999). Parents' observations about their children's transitions to kindergarten. *Young Children, 54*(3), 47-52.

Pianta, R. C., Longmaid, K., & Ferguson, J. E. (1999). Attachment-based classifications of children's family drawings: Psychometric properties and relations with children's adjustment in kindergarten. *Journal of Clinical Child Psychology, 28*(2), 244-255. doi:10.1207/s15374424jccp2802_11

Rimm-Kaufman, S., & Pianta, R. C. (1999). Patterns of family-school contact in preschool and kindergarten. *School Psychology Review, 28*(3), 426-438.

Pianta, R. C., & Walsh, D. J. (1998). Applying the construct of resilience in schools: Cautions from A developmental systems. *School Psychology Review, 27*(3), 407-417.

Pianta, R. C. (1997). Adult-child relationship processes and early schooling. *Early Education and Development, 8*(1), 11-26. doi:10.1207/s15566935eed0801_2

Pianta, R. C., López-Hernández, C., & Ferguson, J. E. (1997). Adolescent mothers and their children's early school performance. *Early Education and Development, 8*(4), 377-387. doi:10.1207/s15566935eed0804_2

Pianta, R. C., & McCoy, S. J. (1997). The first day of school: The predictive validity of early school screening. *Journal of Applied Developmental Psychology, 18*(1), 1-22. doi:10.1016/S0193-3973(97)90011-3

Pianta, R. C., Nimetz, S. L., & Bennett, E. (1997). Mother-child relationships, teacher-child relationships, and school outcomes in preschool and kindergarten. *Early Childhood Research Quarterly, 12*(3), 263-280. doi:10.1016/S0885-2006(97)90003-X

Pianta, R. C., Tietbohl, P. J., & Bennett, E. M. (1997). Differences in social adjustment and classroom behavior between children retained in kindergarten and groups of age and grade matched peers. *Early Education and Development, 8*(2), 137-152. doi:10.1207/s15566935eed0802_3

Sheeran, T., Marvin, R. S., & Pianta, R. C. (1997). Mothers' resolution of their child's diagnosis and self-reported measures of parenting stress, marital relations, and social support. *Journal of Pediatric Psychology, 22*(2), 197-212. doi:10.1093/jpepsy/22.2.197

Weiss, K. L., Marvin, R. S., & Pianta, R. C. (1997). Ethnographic detection and description of family strategies for child care: Applications to the study of cerebral palsy. *Journal of Pediatric Psychology, 22*(2), 263-278. doi:10.1093/jpepsy/22.2.263

Egeland, B., Pianta, R., & Ogawa, J. (1996). Early behavior problems: Pathways to mental disorders in adolescence. *Development and Psychopathology, 8*(4), 735-749. doi:10.1017/S0954579400007392

Marvin, R. S., & Pianta, R. C. (1996). Mothers' reactions to their child's diagnosis: Relations with security of attachment. *Journal of Clinical Child Psychology, 25*(4), 436-445. doi:10.1207/s15374424jccp2504_8

Pianta, R. C., Egeland, B., & Adam, E. K. (1996). Adult attachment classification and self-reported psychiatric symptomatology as assessed by the Minnesota Multiphasic Personality Inventory-2. *Journal of Consulting and Clinical Psychology, 64*(2), 273-281. doi:10.1037/0022-006X.64.2.273

Pianta, R. C., & Harbers, K. L. (1996). Observing mother and child behavior in a problem-solving situation at school entry: Relations with academic achievement. *Journal of School Psychology, 34*(3), 307-322. doi:10.1016/0022-4405(96)00017-9

Pianta, R. C., Marvin, R. S., Britner, P. A., & Borowitz, K. C. (1996). Mothers' resolution of their children's diagnosis: Organized patterns of caregiving representations. *Infant Mental Health Journal, 17*(3), 239-256. doi:10.1002/(SICI)1097-0355(199623)17:3<239::AID-IMHJ4>3.0.CO;2-J

Pianta, R. C., Steinberg, M. S., & Rollins, K. B. (1995). The first two years of school: Teacher-child relationships and deflections in children's classroom adjustment. *Development and Psychopathology, 7*(2), 295-312. doi:10.1017/S0954579400006519

Nicholas, K. K., & Pianta, R. C. (1994). Mother-child interactions and seizure control: Relations with behavior problems in children with epilepsy. *Journal of Epilepsy, 7*(2), 102-107. doi:10.1016/0896-6974(94)90007-8

Pianta, R. C. (1994). Patterns of relationships between children and kindergarten teachers. *Journal of School Psychology, 32*(1), 15-31. doi:10.1016/0022-4405(94)90026-4

Pianta, R. C., & Egeland, B. (1994). Predictors of instability in children's mental test performance at 24, 48, and 96 months. *Intelligence, 18*(2), 145-163. doi:10.1016/0160-2896(94)90025-6

Pianta, R. C., & Egeland, B. (1994). Relation between depressive symptoms and stressful life events in a sample of disadvantaged mothers. *Journal of Consulting and Clinical Psychology, 62*(6), 1229-1234. doi:10.1037/0022-006X.62.6.1229

Pianta, R. C., & Lothman, D. J. (1994). Predicting behavior problems in children with epilepsy: Child factors, disease factors, family stress, and child-mother interaction. *Child Development, 65*(5), 1415-1428. doi:10.2307/1131508

Artiles, A. J., & Pianta, R. C. (1993). Winds of change in Guatemala's educational system. *International Journal of Special Education, 8*, 1-14.

Ball, R. M., & Pianta, R. C. (1993). Relations between maternal network size and maternal behaviour with five-year-olds across levels of maternal background and child ability. *Early Development and Parenting, 2*(4), 209-216. doi:10.1002/edp.2430020404

Clancy, C. H., & Pianta, R. C. (1993). The Metropolitan Readiness Test as a descriptor and predictor of children's competence in kindergarten through grade two. *Journal of Psychoeducational Assessment, 11*(2), 144-157. doi:10.1177/073428299301100205

Egeland, B., Pianta, R., & O'Brien, M. A. (1993). Maternal intrusiveness in infancy and child maladaptation in early school years. *Development and Psychopathology, 5*(3), 359-370. doi:10.1017/S0954579400004466

Lothman, D. J., & Pianta, R. C. (1993). Role of child-mother interaction in predicting competence of children with epilepsy. *Epilepsia, 34*(4), 658-669. doi:10.1111/j.1528-1157.1993.tb00443.x

Michels, S., Pianta, R. C., & Reeve, R. E. (1993). Parent self-reports of discipline practices and child acting-out behaviors in kindergarten. *Early Education and Development, 4*(2), 139-144. doi:10.1207/s15566935eed0402_6

Pianta, R. C., & Ball, R. M. (1993). Maternal social support as a predictor of child adjustment in kindergarten. *Journal of Applied Developmental Psychology, 14*(1), 107-120. doi:10.1016/0193-3973(93)90026-R

Marvin, R. S., & Pianta, R. C. (1992). A relationship-based approach to self-reliance in young children with motor impairments. *Infants & Young Children, 4*(4), 33-45. doi:10.1097/00001163-199204000-00006

Pianta, R. C. (1992). Conceptual and methodological issues in research on relationships between children and nonparental adults. *New Directions for Child Development,* (57), 121-29. doi:10.1002/cd.23219925709

Caldwell, C. B., & Pianta, R. C. (1991). A measure of young children's problem and competence behaviors: The early school behavior scale. *Journal of Psychoeducational Assessment, 9*(1), 32-44. doi:10.1177/073428299100900103

Pianta, R. C., & Nimetz, S. L. (1991). Relationships between children and teachers: Associations with classroom and home behavior. *Journal of Applied Developmental Psychology, 12*(3), 379-393. doi:10.1016/0193-3973(91)90007-Q

Pianta, R. C., Smith, N., & Reeve, R. E. (1991). Observing mother and child behavior in a problem-solving situation at school entry: Relations with classroom adjustment. *School Psychology Quarterly, 6*(1), 1-15. doi:10.1037/h0088238

Lothman, D. J., Pianta, R. C., & Clarson, S. M. (1990). Mother-child interaction in children with epilepsy: Relations with child competence. *Journal of Epilepsy, 3*(3), 157-163. doi:10.1016/0896-6974(90)90102-5

Pianta, R. C. (1990). Widening the debate on educational reform: Prevention as a viable alternative. *Exceptional Children, 56*(4), 306-313.

Pianta, R. C., & Caldwell, C. B. (1990). Stability of externalizing symptoms from kindergarten to first grade and factors related to instability. *Development and Psychopathology, 2*(3), 247-258. doi:10.1017/S0954579400000754

Pianta, R. C., & Egeland, B. (1990). Life stress and parenting outcomes in a disadvantaged sample: Results of the mother-child interaction project. *Journal of Clinical Child Psychology, 19*(4), 329-336. doi:10.1207/s15374424jccp1904_4

Pianta, R. C., Erickson, M. F., Wagner, N., & Kreutzer, T. (1990). Early predictors of referral for special services: Child-based measures versus mother-child interaction. *School Psychology Review, 19*(2), 240-250.

Erickson, M. F., & Pianta, R. C. (1989). New lunchbox, old feelings: What kids bring to school. *Early Education and Development, 1*(1), 35-49. doi:10.1207/s15566935eed0101_4

Pianta, R. C., & Castaldi, J. (1989). Stability of internalizing symptoms from kindergarten to first grade and factors related to instability. *Development and Psychopathology, 1*(4), 305-316. doi:10.1017/S0954579400000493

Pianta, R. C., & Nimetz, S. L. (1989). Educators' beliefs about risk and prevention: The context for changing practice. *Early Education & Development, 1*(2), 115-126. doi:10.1207/s15566935eed0102_3

Pianta, R. C., Sroufe, L. A., & Egeland, B. (1989). Continuity and discontinuity in maternal sensitivity at 6, 24, and 42 months in a high-risk sample. *Child Development, 60*(2), 481-487. doi:10.2307/1130992

Pianta, R. C., Egeland, B., & Hyatt, A. (1986). Maternal relationship history as an indicator of developmental risk. *American Journal of Orthopsychiatry, 56*(3), 385-398. doi:10.1111/j.1939-0025.1986.tb03471.x

Pianta, B. (1984). Antecedents of child abuse: Single and multiple factor models. *School Psychology International, 5*(3), 151-160. doi:10.1177/0143034384053005

Ysseldyke, J. E., Christenson, S., Pianta, B., & Algozzine, B. (1983). An analysis of teachers' reasons and desired outcomes for students referred for psychoeducational assessment. *Journal of Psychoeducational Assessment, 1*(1), 73-83. doi:10.1177/073428298300100107

Ysseldyke, J. E., Pianta, B., Christenson, S., Wang, J., & Algozzine, B. (1983). An analysis of prereferral interventions. *Psychology in the Schools, 20*(2), 184-190. doi:10.1002/1520-6807(198304)20:2<184::AID-PITS2310200209>3.0.CO;2-H

Cherkes, M., & Pianta, R. (1980). Using logic in special classrooms (2) *Academic Therapy, 15*(3), 299-315.

Book Chapters

Gregory, A., Allen, J. P., Mikami, A. Y., Hafen, C. A., & Pianta, R. C. (2015). Promise of a teacher professional development program in reducing racial disparity in classroom exclusionary discipline. In D. J. Losen (Ed.), *Closing the school discipline gap: Equitable remedies for excessive exclusion* (pp. 166-179) Teachers College Press.

Gregory, A., Allen, J.P., Mikami, A.Y., Hafen, C A., & and Pianta, R. (2014). Eliminating the racial disparity in classroom exclusionary discipline. *Journal of Applied Research on Children: Informing Policy for Children at Risk, 5*(2) Retrieved from http://digitalcommons.library.tmc.edu/childrenatrisk/vol5/iss2/12

O'Connor, T., & Pianta, R. C. (2014). Psychosocial factors in the aetiology and course of specific learning disabilities. In G. Reid, J. Soler & J. Wearmouth (Eds.), *Contextualising difficulties in literacy development: Exploring politics, culture, ethnicity and ethics* (pp. 226-244). New York: Taylor & Francis.

Pianta, R. C. (2014). Consistent environmental stimulation from birth to elementary school: The combined contribution of different settings on school achievement. In S. H. Landry, & C. L. Cooper (Eds.), *Wellbeing: A complete reference guide, wellbeing in children and families: Volume I* (pp. 297-320). Chichester: Wiley-Blackwell.

Hatfield, B. E., & Pianta, R. C. (2013). Assessing the effectiveness of environments and instruction in early childhood settings. In D. R. Reutzel (Ed.), *The handbook of research-based practice in early childhood education* (pp. 272-292). New York: Guilford Press.

Sabol, T. J., & Pianta, R. C. (2013). Relationships between teachers and children. In W. M. Reynolds, G. E. Miller & I. B. Weiner (Eds.), *Handbook of psychology: Educational psychology (2nd ed., Vol.7, 199-211).*Hoboken, NJ: John Wiley & Sons Inc.

Downer, J. T., Jamil, F., Maier, M. F., & Pianta, R. C. (2012). Implications of information processing theory for professional development of early educators. In C. Howes, B. K. Hamre & R. C. Pianta (Eds.), *Effective early childhood professional development: Improving teacher practice and child outcomes* (pp. 131-155). Baltimore: Paul H. Brookes Publishing Company.

Hamre, B. K., Downer, J. T., Jamil, F. M., & Pianta, R. C. (2012). Enhancing teachers' intentional use of effective interactions with children. In R. C. Pianta, W. S. Barnett, L. M. Justice & S. M. Sheridan (Eds.), *Handbook of early childhood education* (pp. 507-532). New York: Guilford Press

LoCasale-Crouch, J., Rudasill, K. M., Sweeney, B. D., Chattrabhuti, C., Patton, C., & Pianta, R. C. (2012). The transition to kindergarten: Fostering collaborations for early school success. In S. A. Karabenick, & T. C. Urdean (Eds.), *Advances in motivation and achievement: Transitions across schools and cultures* (pp. 1-26). Greenwich, CT: Emerald Group Publishing Limited. doi:10.1108/S0749-7423(2012)0000017004

Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions. In S. L. Christenson, A. L. Reschly & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 365-386). New York: Springer Science. doi:10.1007/978-1-4614-2018-7_17

Pianta, R. C., Hamre, B. K., & Hadden, D. S. (2012). Scaling-up effective professional development. In C. Howes, B. K. Hamre & R. C. Pianta (Eds.), *Effective early childhood professional development: Improving teacher practice and child outcomes* (pp. 191-212). Baltimore: Paul H. Brookes Publishing Company.

Whittaker, J. E. V., & Pianta, R. C. (2012). Assessing early childhood classrooms. In B. H. Wasik (Ed.), *Handbook of family literacy* (2nd ed., pp. 401-416). New York: Routledge.

Pianta, R. C. (2011). A degree is not enough: Teachers need stronger and more individualized professional development supports to be effective in the classroom. In E. Zigler, W. E. Gilliam & W. S. Barnett (Eds.), *The pre-K debates" current controversies and issues.* Baltimore, MD: Paul H. Brookes Publishing, Co, Inc.

Pianta, R. C., Hamre, B. K., & Downer, J. (2011). Aligning measures of quality with professional development goals and goals for children's development. In M. Zaslow, I. Martinez-Beck, K. Tout & T. Halle (Eds.), *Quality measurement in early childhood settings* (pp. 297-315). Baltimore, MD: Paul H. Brookes Publishing Co.

Toth, S. L., Pianta, R. C., & Erickson, M. F. (2011). From research to practice: Developmental contributions to the field of prevention science. In D. Cicchetti, & G. I. Roisman (Eds.), *Minnesota*

symposia on child psychology, volume 36: The origins and organization of adaptation and maladaptation (pp. 323-378). Hoboken: John Wiley & Sons Ltd.

Hamre, B. K., & Pianta, R. (2010). Classroom environments and developmental processes: Conceptualization, measurement, & improvement. In J. L. Meece, & J. S. Eccles (Eds.), *Handbook of research on schools, schooling and human development* (pp. 25-41). New York: Routledge.

Henry, A. E., & Pianta, R. C. (2010). Effective teacher-child interactions and children's literacy: Evidence for scalable, aligned approaches to professional development. In S. B. Neuman, & D. K. Dickinson (Eds.), *Handbook of early literacy research, volume 3* (pp. 308-321). New York: Guilford Press.

Jung, Y., Howes, C., & Pianta, R. C. (2010). Emerging issues in prekindergarten programs. In R. C. Pianta, & C. Howes (Eds.), *The promise of pre-K* (pp. 145-167). Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Mashburn, A. J., & Pianta, R. C. (2010). Opportunity in early education: Improving teacher-child interactions and child outcomes. In A. J. Reynolds, A. J. Rolnick, M. M. Englund & J. A. Temple (Eds.), *Childhood programs and practices in the first decade of life: A human capital integration* (pp. 1-42) Cambridge University Press.

Dotterer, A. M., Burchinal, M., Bryant, D. M., Early, D. M., & Pianta, R. C. (2009). Comparing universal and targeted prekindergarten programs. In R. C. Pianta, & C. Howes (Eds.), *The promise of pre-k* (pp. 65-76). Baltimore: Paul H. Brookes Publishing Co.

Hamre, B. K., Pianta, R. C., & Chomat-Mooney, L. (2009). Conducting classroom observations in school-based research. In L. M. Dinella (Ed.), *Conducting science-based psychology research in schools* (pp. 79-105). Washington, D. C.: American Psychological Association. doi:10.1037/11881-004

Pianta, R. C. (2009). School psychology and developmental psychology: Moving from programs to processes. In T. B. Gutkin, & C. R. Reynolds (Eds.), *The handbook of school psychology* (4th ed., pp. 107-123). New York: John Wiley & Sons, Inc.

Pianta, R. C., & Hamre, B. K. (2009). Measurement and improvement of teacher-child interactions: Implications for policy and accountability frameworks of standardized observation. In G. Sykes, B. Schneider, D. N. Plank & T. G. Ford (Eds.), *Handbook of education policy research* (pp. 652-660). New York: Routledge.

Hamre, B. K., LoCasale-Crouch, J., & Pianta, R. C. (2008). Formative assessment of classrooms: Using classroom observations to improve implementation quality. In L. M. Justice, & C. Vukelich (Eds.), *Achieving excellence in preschool literacy instruction* (pp. 102-119). New York: Guilford Press.

Jerome, E. M., & Pianta, R. C. (2008). Teacher–Student relationships. In T. L. Good (Ed.), *21st century education: A reference handbook* (pp. 158-165). Los Angeles: Sage Publications.

Pianta, R. C., & Allen, J. P. (2008). Building capacity for positive youth development in secondary school classrooms: Changing teachers' interactions with students. In M. Shinn, & H. Yoshikawa (Eds.), *Toward positive youth development: Transforming schools and community programs* (pp. 21-39). New York: Oxford University Press,. doi:10.1093/acprof:oso/9780195327892.003.0002

Hamre, B. K., & Pianta, R. C. (2007). Learning opportunities in preschool and early elementary classrooms. In R. C. Pianta, M. J. Cox & K. L. Snow (Eds.), *School readiness and the transition to kindergarten in the era of accountability* (pp. 49-83). Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Pianta, R. C. (2007). Developmental science and education: The NICHD study of early child care and youth development findings from elementary school. In R. V. Kail (Ed.), *Advances in child development and behavior* (pp. 253-296). San Diego, CA: Elsevier Academic Press.

Pianta, R. C. (2007). Early education in transition. In R. C. Pianta, M. J. Cox & K. L. Snow (Eds.), *School readiness and the transition to kindergarten in the era of accountability* (pp. 3-10). Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Pianta, R., Stuhlman, M. W., & Hamre, B. K. (2007). How adult-child relationships foster resilience in kindergarten and elementary school. In G. Opp, & M. Fingerle (Eds.), *Was kinder stärkt-erziehung zwischen risiko und resilienz* (2nd ed., pp. 192-211). München: Reinhardt.

Downer, J., Driscoll, K., & Pianta, R. (2006). Transition from kindergarten to first grade. In D. F. Gullo (Ed.), *K today: Teaching and learning in the kindergarten year* (pp. 151-160). Washington, D.C.: National Association for the Education of Young Children.

Hadden, D. S., & Pianta, R. C. (2006). Clinical consultation with teachers for improved preschool literacy instruction. In L. M. Justice (Ed.), *Clinical approaches to emergent literacy intervention* (pp. 99-124). San Diego, CA: Plural Publishing Inc.

Hamre, B. K., & Pianta, R. C. (2006). Student-teacher relationships. In G. G. Bear, & K. M. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 59-72). Washington, D. C.: National Association of School Psychologists.

Pianta, R. C. (2006). Classroom management and relationships between children and teachers: Implications for research and practice. In *Handbook of classroom management: Research, practice, and contemporary issues.* (pp. 685-709). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Pianta, R. C. (2006). Schools, schooling, and developmental psychopathology. In *Developmental psychopathology, volume 1: Theory and method (2nd ed.).* (pp. 494-529). Hoboken, NJ: John Wiley & Sons, Inc.

Pianta, R. C. (2006). Standardized observation and professional development: A focus on individualized implementation and practices. In M. Zaslow, & I. Martinez-Beck (Eds.), *Critical issues in early childhood professional development.* (pp. 231-254). Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Pianta, R. C. (2006). Teacher-child relationships and early literacy. In D. K. Dickinson, & S. B. Neuman (Eds.), *Handbook of early literacy research, volume 2* (pp. 149-162). New York: Guilford Press.

Pianta, R. C., & Rimm-Kaufman, S. (2006). The social ecology of the transition to school: Classrooms, families, and children. In *Blackwell handbook of early childhood development.* (pp. 490-507). Malden: Blackwell Publishing. doi:10.1002/9780470757703.ch24

Pianta, R. C., & Hadden, D. S. (2006). Clinical approaches to emergent literacy intervention. In L. M. Justice (Ed.), *Clinical approaches to emergent literacy intervention* (pp. 99-124). San Diego, CA: Plural Publishing Inc.

Steinberg, D. R., & Pianta, R. C. (2006). Maternal representations of relationships: Assessing multiple parenting dimensions. In O. Mayseless (Ed.), *Parenting representations: Theory, research, and clinical implications.* (pp. 41-78). New York: Cambridge University Press. doi:10.1017/CBO9780511499869.003

Pianta, R. C. (2004). Relationships among children and adults and family literacy. In B. H. Wasik (Ed.), *Handbook of family literacy.* (pp. 175-191). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Pianta, R. C., Hamre, B., & Stuhlman, M. (2003). Relationships between teachers and children. In W. M. Reynolds, G. E. Miller & I. B. Weiner (Eds.), *Handbook of psychology: Vol. 7. Educational psychology* (pp. 199-234). Hoboken, NJ: John Wiley & Sons, Inc.

Pianta, R. C., Stuhlman, M., & Hamre, B. K. (2002). How schools can do better: Fostering stronger connections between teachers and students. In J. E. Rhodes (Ed.), *A critical view of youth mentoring* (pp. 91-107). San Francisco, CA US: Jossey-Bass.

Pianta, R. C. (2001). Implications of a developmental systems model for preventing and treating behavioral disturbances in children and adolescents. In J. N. Hughes, A. M. La Greca & J. C. Conoley (Eds.), *Handbook of psychological services for children and adolescents.* (pp. 23-41). New York: Oxford University Press.

O'Connor, T. G., & Pianta, R. C. (1999). Psychosocial factors in the aetiology and course of specific learning disabilities. In K. Whitmore, H. Hart & G. Willems (Eds.), *A neurodevelopmental approach to specific learning disorders* (pp. 211-226). London: MacKeith Press.

Pianta, R. C. (1999). Early childhood. In W. K. Silverman, & T. H. Ollendick (Eds.), *Developmental issues in the clinical treatment of children* (pp. 88-107). Needham Heights, MA: Allyn & Bacon.

Pianta, R. C., & Cox, M. J. (1999). The changing nature of the transition to school: Trends for the next decade. In R. C. Pianta, & M. J. Cox (Eds.), *The transition to kindergarten* (pp. 363-379). Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Pianta, R. C., Marvin, R. S., & Morog, M. C. (1999). Resolving the past and the present: Relations with attachment disorganization. In J. Solomon, & C. George (Eds.), *Attachment disorganization* (pp. 379-398). New York: Guilford Press.

Pianta, R. C., Rimm-Kaufman, S. E., & Cox, M. J. (1999). An ecological approach to kindergarten transition. In R. C. Pianta, & M. J. Cox (Eds.), *The transition to kindergarten* (pp. 3-12). Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Pianta, R. C., & O'Connor, T. G. (1996). Developmental systems challenges to the study of specific environmental effects: An argument for niche-level influences. In D. K. Detterman (Ed.), *Current topics in human intelligence, volume 5: The environment* (pp. 45-58). Norwood, N.J.: Ablex Publishing Corporation.

Pianta, R. C., & O'Connor, T. G. (1996). The niche revisited: Implications for research on the environment and intelligence. In D. K. Detterman (Ed.), *Current topics in human intelligence, volume 5: The environment* (pp. 217-228). Norwood, N.J.: Ablex Publishing Corporation.

Pianta, R. C., & Nimetz, S. L. (1992). Development of young children in stressful contexts: Theory, assessment, and prevention In M. Gettinger, S. N. Elliott & T. R. Kratochwill (Eds.), *Preschool and early childhood treatment directions.* (pp. 151-185). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Pianta, R. C., & Steinberg, M. (1992). Teacher-child relationships and the process of adjusting to school. In R. C. Pianta (Ed.), *Beyond the parent: The role of other adults in children's lives* (pp. 61-80). San Francisco: Jossey-Bass. doi:10.1002/cd.23219925706

Pianta, R. C., Egeland, B., & Sroufe, L. A. (1990). Maternal stress and children's development: Prediction of school outcomes and identification of protective factors. In J. Jon Rolf, A. S. Masten, D. Cicchetti, K. H. Nüchterlein & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology.* (pp. 215-235). New York, NY US: Cambridge University Press. doi:10.1017/CBO9780511752872.014

Pianta, R. C., & Reeve, R. E. (1990). Preschool screening of ethnic minority children and children of poverty: Issues for practice and research. In A. Barona, & E. E. Garcia (Eds.), *Children at risk: Poverty minority status and educational equity* (pp. 259-268). Washington, D. C.: National Association of School Psychologists.

Erickson, M. F., Egeland, B., & Pianta, R. (1989). The effects of maltreatment on the development of young children. In D. Cicchetti, & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect.* (pp. 647-684). New York: Cambridge University Press. doi:10.1017/CBO9780511665707.021

Pianta, R., Egeland, B., & Erickson, M. F. (1989). The antecedents of maltreatment: Results of the mother-child interaction research project. In D. Cicchetti, & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 203-253). New York: Cambridge University Press. doi:10.1017/CBO9780511665707.008

Books

Kane, T. J., Kerr, K. A., & Pianta, R. C. (Eds.). (in press). *Designing teacher evaluation systems: New guidance from the measures of effective teaching project*. San Francisco: Jossey-Bass.

Howes, C., Hamre, B. K., & Pianta, R. C. (Eds.). (2012). *Effective early childhood professional development: Improving teacher practice and child outcomes*. Baltimore: Paul H. Brookes Publishing Company.

Pianta, R. C., Barnett, W. S., Justice, L. M., & and Sheridan, S. M. (Eds.). (2012). *Handbook of early childhood education*. New York: Guilford Press.

Howes, C., Downer, J. T., & Pianta, R. C. (2011). *Dual language learners in the early childhood classroom*. Baltimore: Paul H. Brookes Pub. Co., Inc.

Howes, C., & Pianta, R. C. (2011). *Foundations for teaching excellence: Connecting early childhood quality rating, professional development, and competency systems in states*. Baltimore: Paul H. Brookes Pub. Co., Inc.

Pianta, R. C., & Howes, C. (Eds.). (2009). *The promise of pre-k*. Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Pianta, R. C., Cox, M. J., & Snow, K. L. (Eds.). (2007). *School readiness and the transition to kindergarten in the era of accountability*. Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Pianta, R. C., & Kraft-Sayre, M. (2003). *Successful kindergarten transition: Your guide to connecting children, families & schools*. Baltimore, MD: P.H. Brookes Publishing Co., Inc.

Pianta, R. C. (1999). *Enhancing relationships between children and teachers*. Washington, D. C.: American Psychological Association. doi:10.1037/10314-000

Pianta, R. C., & Cox, M. J. (Eds.). (1999). *The transition to kindergarten*. Baltimore, MD: Paul H. Brookes Publishing Co., Inc.

Pianta, R. C., & Walsh, D. J. (1996). *High-risk children in schools: Constructing sustaining relationships*. New York: Routledge.

Pianta, R. C. (Ed.). (1992). *Beyond the parent: The role of other adults in children's lives*. San Francisco, CA: Jossey-Bass.

Selected NICHD Early Child Care Research Network Journal Articles
Note that individual investigators' names appear only on a corporate-author banner. Papers listed are a subset of the total number of corporate papers for which Pianta had a substantial role in producing the manuscript according to Steering Committee policy.

Burchinal, M., McCartney, K., Steinberg, L., Crosnoe, R., Friedman, S. L., McLoyd, V., . . . NICHD Early Child Care Research Network. (2011). Examining the Black–White achievement gap among low-income children using the NICHD study of early child care and youth development. *Child Development, 82*(5), 1404-1420. doi:10.1111/j.1467-8624.2011.01620.x

NICHD Early Child Care Research Network. (2008). Social competence with peers in third grade: Associations with earlier peer experiences in childcare. *Social Development, 17*(3), 419-453. doi:10.1111/j.1467-9507.2007.00446.x

NICHD Early Child Care Research Network. (2008). Mothers' and fathers' support for child autonomy and early school achievement. *Developmental Psychology, 44*(4), 895-907. doi:10.1037/0012-1649.44.4.895

Belsky, J., Houts, R. M., DeHart, G., Roisman, G. I., Steinberg, L. D., Friedman, S. L., . . . NICHD Early Child Care Research Network. (2007). Family rearing antecedents of pubertal timing. *Child Development, 78*(4), 1302-1321. doi:10.1111/j.1467-8624.2007.01067.x

NICHD Early Child Care Research Network. (2007). Age of entry to kindergarten and children's academic achievement and socioemotional development. *Early Education & Development, 18*(2), 337-368. doi:10.1080/10409280701283460

NICHD Early Child Care Research Network. (2006). Child-care effect sizes for the NICHD study of early child care and youth development. *American Psychologist, 61*(2), 99-116. doi:10.1037/0003-066X.61.2.99

NICHD Early Child Care Research Network. (2006). The relations of classroom contexts in the early elementary years to children's classroom and social behavior. In A. C. Huston, & M. N. Ripke (Eds.), *Developmental contexts in middle childhood: Bridges to adolescence and adulthood* (pp. 217-236). Cambridge, UK ; New York: Cambridge University Press.

NICHD Early Child Care Research Network. (2005). Duration and developmental timing of poverty and children's cognitive and social development from birth through third grade. *Child Development, 76*(4), 795-810. doi:10.1111/j.1467-8624.2005.00878.x

NICHD Early Child Care Research Network. (2005). Oral language and reading: Reply to Bracken (2005). *Developmental Psychology, 41*(6), 1000-1002. doi:10.1037/0012-1649.41.6.1000

NICHD Early Child Care Research Network. (2005). A day in third grade: A large-scale study of classroom quality and teacher and student behavior. *Elementary School Journal, 105*(3), 305-323. doi:10.1086/428746

NICHD Early Child Care Network. (2005). Child care and common communicable illnesses in children ages 37-54 months. In NICHD Early Child Care Research Network (Ed.), *Child care and child development: Results from the NICHD study of early child care and youth development.* (pp. 184-190). New York: Guilford Press.

NICHD Early Child Care Research Network. (2005). Child outcomes when child care center classes meet recommended standards for quality. In NICHD Early Child Care Research Network (Ed.), *Child care and child development: Results from the NICHD study of early child care and youth development.* (pp. 358-363). New York: Guilford Press. doi:10.2105/AJPH.89.7.1072

NICHD Early Child Care Research Network. (2005). Early child care and children's development in the primary grades: Follow-up results from the NICHD study of early child care. *American Educational Research Journal, 42*(3), 537-570. doi:10.3102/00028312042003537

NICHD Early Child Care Research Network. (2005). Pathways to reading: The role of oral language in the transition to reading. *Developmental Psychology, 41*(2), 428-442. doi:10.1037/0012-1649.41.2.428

NICHD Early Child Care Research Network. (2005). Predicting individual differences in attention, memory, and planning in first graders from experiences at home, child care, and school. *Developmental Psychology, 41*(1), 99-114. doi:10.1037/0012-1649.41.1.99

NICHD Early Child Care Research Network. (2004). Are child developmental outcomes related to before- and after-school care arrangements? results from the NICHD study of early child care. *Child Development, 75*(1), 280-295. doi:10.1111/j.1467-8624.2004.00669.x

NICHD Early Child Care Research Network. (2004). Fathers' and mothers' parenting behavior and beliefs as predictors of children's social adjustment in the transition to school. *Journal of Family Psychology, 18*(4), 628-638. doi:10.1037/0893-3200.18.4.628

NICHD Early Child Care Research Network. (2004). Does class size in first grade relate to children's academic and social performance or observed classroom processes? *Developmental Psychology, 40*(5), 651-664. doi:10.1037/0012-1649.40.5.651

NICHD Early Child Care Research Network. (2004). Affect dysregulation in the mother–child relationship in the toddler years: Antecedents and consequences. *Development and Psychopathology, 16*(01), 43-68. doi:10.10170S0954579404040404

NICHD Early Child Care Research Network. (2004). Type of child care and children's development at 54 months. *Early Childhood Research Quarterly, 19*(2), 203-230. doi:10.1016/j.ecresq.2004.04.002

NICHD Early Child Care Research Network. (2004). Multiple pathways to early academic achievement. *Harvard Educational Review, 74*(1), 1-29.

NICHD Early Child Care Research Network. (2003). Child care in the world—past and present: Does amount of time spent in child care predict socioemotional adjustment during the transition to kindergarten? *Journal of the Japan Society for Child Health, 62*, 418-431.

Duncan, G. J., & NICHD Early Child Care Research Network. (2003). Modeling the impacts of child care quality on children's preschool cognitive development. *Child Development, 74*(5), 1454-1475. doi:10.1111/1467-8624.00617

NICHD Early Child Care Research Network. (2003). Child care and common communicable illnesses in children aged 37 to 54 months. *Archives of Pediatrics & Adolescent Medicine, 157*(2), 196-200.

NICHD Early Child Care Research Network. (2003). Does amount of time spent in child care predict socioemotional adjustment during the transition to kindergarten? *Child Development, 74*(4), 976-1005. doi:10.1111/1467-8624.00582

NICHD Early Child Care Research Network. (2003). Social functioning in first grade: Associations with earlier home and child care predictors and with current classroom experiences. *Child Development, 74*(6), 1639-1662. doi:10.1046/j.1467-8624.2003.00629.x

NICHD Study of Early Child Care and Youth Development Network. (2003). Frequency and intensity of activity of third-grade children in physical education. *Archives of Pediatrics & Adolescent Medicine, 157*(2), 185-190.

NICHD Early Child Care Research Network. (2003). Do children's attention processes mediate the link between family predictors and school readiness? *Developmental Psychology, 39*(3), 581-593. doi:10.1037/0012-1649.39.3.581

NICHD Early Child Care Research Network. (2003). Does quality of child care affect child outcomes at age 4 1/2? *Developmental Psychology, 39*(3), 451-469. doi:10.1037/0012-1649.39.3.451

NICHD Early Child Care Research Network. (2003). Early child care and mother-child interaction from 36 months through first grade. *Infant Behavior & Development, 26*(3), 345-370. doi:10.1016/S0163-6383(03)00035-3

NICHD Early Child Care Research Network. (2003). Families matter--even for kids in child care. *Journal of Developmental & Behavioral Pediatrics, 24*(1), 58-62. doi:10.1097/00004703-200302000-00011

NICHD Early Child Care Research Network. (2003). NICHD study of early child care: Contexts of development and developmental outcomes over the first seven years of life. In J. Brooks-Gunn, A. S. Fuligni, & L. J. Berlin (Eds.), *Early child development in the 21st century: Profiles of current research initiatives* (pp. 182-201). New York: Teachers College Press.

NICHD Early Child Care Research Network. (2002). The relation of global first-grade classroom environment to structural classroom features and teacher and student behaviors. *Elementary School Journal, 102*(5), 367-387. doi:10.1086/499709

NICHD Early Child Care Research Network. (2002). Early child care and children's development prior to school entry: Results from the NICHD study of early child care. *American Educational Research Journal, 39*(1), 133-164. doi:10.3102/00028312039001133

NICHD Early Child Care Research Network. (2002). The interaction of child care and family risk in relation to child development at 24 and 36 months. *Applied Developmental Science, 6*(3), 144-156. doi:10.1207/S1532480XADS0603_4

NICHD Early Child Care Research Network. (2002). Child-care structure --> process --> outcome: Direct and indirect effects of child-care quality on young children's development. *Psychological Science, 13*(3), 199-206.

NICHD Early Child Care Research Network. (2002). Parenting and family influences when children are in child care: Results from the NICHD study of early child care. In J. G. Borkowski, S. L. Ramey, & M. Bristol-Power (Eds.), *Parenting and the child's world: Influences on academic, intellectual, and social-emotional development* (pp. 99-123). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

NICHD Early Child Care Research Network. (2001). Child care and common communicable illnesses: Results from the national institute of child health and human development study of early child care. *Archives of Pediatrics & Adolescent Medicine, 155*(4), 481-488.

NICHD Early Child Care Network. (2001). Child care and children's peer interaction at 24 and 36 months: The NICHD study of early child care. *Child Development, 72*(5), 1478-1500. doi:10.1111/1467-8624.00361

NICHD Early Child Care Research Network. (2001). Nonmaternal care and family factors in early development: An overview of the NICHD study of early child care. *Journal of Applied Developmental Psychology, 22*(5), 457-492. doi:10.1016/S0193-3973(01)00092-2

NICHD Early Child Care Research Network. (2001). Child-care and family predictors of preschool attachment and stability from infancy. *Developmental Psychology, 37*(6), 847-862. doi:10.1037/0012-1649.37.6.847

NICHD Early Child Care Research Network. (2001). Before head start: Income and ethnicity, family characteristics, child care experiences, and child development. *Early Education & Development, 12*(4), 545-576. doi:10.1207/s15566935eed1204_4

NICHD Early Child Care Research Network. (2001). A new guide for evaluating child care quality. *Zero to Three, 21*(5), 40-47.

NICHD Early Child Care Research Network. (2000). Characteristics and quality of child care for toddlers and preschoolers. *Applied Developmental Science, 4*(3), 116-135. doi:10.1207/S1532480XADS0403_2

NICHD Early Child Care Research Network. (2000). The relation of child care to cognitive and language development. *Child Development, 71*(4), 960-980. doi:10.1111/1467-8624.00202

NICHD Early Child Care Research Network. (2000). Factors associated with fathers' caregiving activities and sensitivity with young children. *Journal of Family Psychology, 14*(2), 200-219. doi:10.1037/0893-3200.14.2.200

NICHD Early Child Care Research Network. (1999). Child care and mother–child interaction in the first three years of life. *Developmental Psychology, 35*(6), 1399-1413. doi:10.1037/0012-1649.35.6.1399

NICHD Early Child Care Research Network. (1999). Chronicity of maternal depressive symptoms, maternal sensitivity, and child functioning at 36 months. *Developmental Psychology, 35*(5), 1297-1310. doi:10.1037/0012-1649.35.5.1297

NICHD Early Child Care Research Network. (1999). Child outcomes when child care center classes meet recommended standards for quality. *American Journal of Public Health, 89*(7), 1072-1077. doi:10.2105/AJPH.89.7.1072

NICHD Early Child Care Research Network. (1998). Early child care and self-control, compliance, and problem behavior at twenty-four and thirty-six months. *Child Development, 69*(4), 1145-1170.

NICHD Early Child Care Research Network. (1998). Relations between family predictors and child outcomes: Are they weaker for children in child care? *Developmental Psychology, 34*(5), 1119-1128. doi:10.1037/0012-1649.34.5.1119

NICHD Early Child Care Research Network. (1997). Child care in the first year of life. *Merrill-Palmer Quarterly, 43*(3), 340-360.

NICHD Early Child Care Research Network. (1997). Poverty and patterns of child care. In G. J. Duncan, & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 100-131). New York: Russell Sage Foundation Publications.

NICHD Early Child Care Research Network. (1997). Familial factors associated with the characteristics of nonmaternal care for infants. *Journal of Marriage & the Family, 59*(2), 389-408. doi:10.2307/353478

NICHD Early Child Care Research Network. (1996). Characteristics of infant child care: Factors contributing to positive caregiving. *Early Childhood Research Quarterly, 11*(3), 269-306. doi:10.1016/S0885-2006(96)90009-5

NICHD Early Child Care Research Network. (1994). Child care and child development: The NICHD study of early child care. In S. L. Friedman, & H. C. Haywood (Eds.), *Developmental follow-up: Concepts, domains, and methods* (pp. 377-396). New York: Academic Press.

Other Publications

Pianta, R. C. (2015). Engage in the K-12 public debate. *Education Week, 34*(17), 19-19.

Betebenner, D., Braun, H., Corcoran, S., Darling-Hammond, L., Friedman, J., Goldhaber, D., . . . Rothstein, J. (2012). *Learning from recent advances in measuring teacher effectiveness* (ERIC Report ED539039). Retrieved from http://www.eric.ed.gov/PDFS/ED539040.pdf

Hatfield, B., Hamre, B., LoCasale-Crouch, J., Pianta, R., Downer, J., Burchinal, M. & Howes, C. (2012). Society for Research on Educational Effectiveness. (2012). *Teacher characteristics influence responsiveness to a course consultancy focused on effective teacher-child interactions* (ERIC Report ED530486). Retrieved from http://www.eric.ed.gov/PDFS/ED530486.pdf

LoCasale-Crouch, J., DeCoster, J., Cabell, S., Hamre, B., Downer, J., & Pianta, R., C. (2012). *Variation in teachers' instructional interactions within two interventions: Associations with intervention responsiveness and Teacher/Classroom characteristics.* (Research No. ED530499).Society for Research on Educational Effectiveness. Retrieved from http://files.eric.ed.gov/fulltext/ED530499.pdf

Pianta, R. C. (2012). *Implementing observation protocols: Lessons for K-12 education from the field of early childhood* (ERIC Report ED535604). Retrieved from http://www.americanprogress.org/wp-content/uploads/issues/2012/05/pdf/observation_protocols.pdf

Pianta, R. C. (2012). Stop complaining about teacher assessments; Find alternatives. *Chronicle of Higher Education, 58*(36), A35-A35.

Pianta, R. C. (2012). Taking seriously the needs and capacity of the early childhood care and education workforce. *Social Policy Report, 26*(1), 27-28.

Pianta, R. C. (2011). *Teaching children well: New evidence-based approaches to teacher professional development and training.* Washington, DC: Center for American Progress. Retrieved from http://www.americanprogress.org/issues/2011/11/teaching_children_well.html

Pianta, R. C. (2011, May 1). How to build a better teacher. *Richmond Times-Dispatch.* Retrieved from http://www2.timesdispatch.com/news/2011/may/01/tdcomm03-how-to-build-a-better-teacher-ar-1006732/

Pianta, R. C., Hitz, R., & West, B. (2010). *Increasing the application of child and adolescent development knowledge in educator preparation and development: Policy issues and recommendations.* National Council for Accreditation of Teacher Education. Retrieved from http://www.ncate.org/LinkClick.aspx?fileticket=OGdzx714RiQ%3D&tabid=706

Downer, J., Driscoll, K., & Pianta, R. (2008). Teacher-child relationships. In W. A. Darity Jr. (Ed.), *International encyclopedia of the social sciences* (2nd ed., pp. 291-293). Detroit: Macmillan References USA.

Pianta, R. C. (2008, February 25,). Pre-K Brings Long-Term Benefits. *Richmond Times-Dispatch.* p. A11.

Pianta, R. C., & Hadden, D. S. (2008, June). What do we know about the quality of early education settings: Implications for research on teacher preparation and professional development. *State Education Standard,* 20-27.

Pianta, R. C. (2007). Measure actual classroom teaching. *Education Week, 27*(11), 30-36.

Pianta, R. (2005/2006 Winter). Classroom observation, professional development, and teacher quality. *Harvard Evaluation Exchange, XI*, 8-9.

Early, D., Barbarin, O., Bryant, D., Burchinal, M., Chang, F., Clifford, R., Crawford, G., Weaver, W., Howes, C., Ritchie, S., Kraft-Sayre, M., Pianta, R., & Barnett, W. S. (2005). *Pre-kindergarten in eleven states: NCEDL's multi-state study of pre-kindergarten and study of state-wide early education programs (SWEEP).* Chapel Hill, NC: National Center for Early Development and Learning. Retrieved from http://www.fpg.unc.edu/~ncedl/pdfs/sweep_ms_summary_final.pdf

Pianta, R. C. (2005). A new elementary school for American children. *Social Policy Report, 19*(3), 4-5.

Pianta, R. (2005/2006 Winter). Classroom observation, professional development, and teacher quality. *Harvard Evaluation Exchange, XI*(4), 8.

Pianta, R. C. (2005). Prevention. In S. W. Lee (Ed.), *Encyclopedia of school psychology* (pp. 405-407). Thousand Oaks, CA: Sage Publications.

Stulman, M. W., & Pianta, R. C. (2005). Teacher-student relationships. In S. W. Lee (Ed.), *Encyclopedia of school psychology* (pp. 558-559). Thousand Oaks, CA: Sage Publications.

Pianta, R. (2004, Summer). Transitioning to school: Policy, practice, and reality. *Harvard Evaluation Exchange, X*(2), 5-6.

Pianta, R. C. (2003). *Standardized classroom observations from pre-k to 3rd grade: A mechanism for improving classroom quality and practices, consistency of P-3 experiences, and child outcomes.* New

York: Foundation for Child Development. Retrieved from http://www.fcd-us.org/sites/default/files/StandardizedClassroomObservations.pdf

Pianta, R. C. (2003, Winter). The transition to school: A focus on children, families, schools, and communities. *Focus on Pre-K and K, 16*(2), 1-8.

Pianta, R. (2002). School readiness: A focus on children, families, communities, and schools. *The Informed Educator Series,* 3-13.

Bryant, D., Clifford, R. M., Saluja, G., Pianta, R., Early, D., Barbarin, O., Howes, C., & Burchinal, M. (2002). *Diversity and directions in state pre-kindergarten programs [Monograph].* Chapel Hill: The University of North Carolina, FPG Child Development Institute, NCEDL. Retrieved from http://www.fpg.unc.edu/~ncedl/pdfs/diversity_direct.pdf

Pianta, R. C. (2002). Questions and answers: Robert Pianta talks about kindergarten transition. *FINE Forum e-Newsletter,* (4), 8-11. Retrieved from http://www.hfrp.org/content/download/3278/96278/file/FINEForum4-EarlyChildhoodEducation.pdfs

Stuhlman, M. W., Hamre, B., & Pianta, R. (2002). Building supportive relationships with adolescents. *Middle Matters, Fall*, 1-3.

Stuhlman, M. W., Hamre, B., & Pianta, R. (2002). Advancing the teen/teacher connection. *Education Digest, 68*(3), 15-17.

Pianta, R. C. (1998). Child development and school psychology: Opportunities for connection. *Society for Research in Child Development Newsletter, 41*(3), 1-3.

Pianta, R. C. (1998). Child development and school psychology: Opportunities for connection. *Society for Research in Child Development Newsletter, 41*(3), 1-3. Retrieved from http://www.eric.ed.gov/PDFS/ED427849.pdf

Pianta, R. (1993, March). Relationships between teachers and children are important contexts for school success. *VASS News: Virginia Association of School Superintendents Newsletter.*

Pianta, R. C. (1991). A new and timely text on assessment of infants and young children [Review of the book *Assessing infants and preschoolers with handicaps*, by Donald B. Bailey, Jr. and Mark Wolery]. *Contemporary Psychology, 36,* 200-221. doi: 10.1037/029520

Pianta, R. (1985). Intelligence or intelligences: How we think about ability. *Early Report, 12*, 1-3.

Dissertation

Pianta, R. C. (1986). *The longitudinal effects of stressful maternal life events and conditions on the developmental outcomes of a high risk sample in the first grade.* (Doctoral dissertation, University of Minnesota, Department of Psychology).

Measures and Materials

Pianta, R. C., Hamre, B., LoCasale-Crouch, J., & La Paro, K. (2014). *Classroom Assessment Scoring System—Infant [CLASS].* Baltimore: Brookes Publishing.

Pianta, R. C., Hamre, B. K., & La Paro, K. (2014). *Classroom Assessment Scoring System—Toddler [CLASS].* Baltimore: Brookes Publishing.

Pianta, R. C., La Paro, K., & Hamre, B. (2008). *Classroom Assessment Scoring System—PreK [CLASS].* Baltimore: Brookes Publishing.

Pianta, R. C., La Paro, K., & Hamre, B. (2008). *Classroom Assessment Scoring System—K-3 [CLASS].* Baltimore: Brookes Publishing.

Pianta, R. C., and Hamre, B. (2001). *Students, Teachers, and Relationship Support [STARS]: User's Guide.* Lutz, FL: Psychological Assessment Resources, Inc.

Pianta, R. C. (2001). *Student-Teacher Relationship Scale.* Lutz, FL: Psychological Assessment Resources, Inc.

Pianta, R. C. (2001). *Student-Teacher Relationship Scale: Professional Manual.* Lutz, FL: Psychological Assessment Resources, Inc.

Pianta, R. C., & Kraft-Sayre, M. E. (2000). *A program for enhancing the transition to kindergarten: Linking families, schools, and children.* The National Center for Early Development and Learning, University of North Carolina—Chapel Hill, NC.

Pianta, R. C., Bunosky, L., Fitz, M., Hamre, B., Kraft-Sayre, M., & Steinberg, D. R. (1999). *Teacher relationship interview coding manual.* Charlottesville, VA: University of Virginia.

Pianta, R. C. (1997). *The Teacher Relationship Interview.* Unpublished measure, University of Virginia, Charlottesville, VA.

Pianta, R. C., & Marvin, R. S. (1993*). Manual for Classification of the Reaction to Diagnosis Interview*. Child-Parent Attachment Project, University of Virginia, Charlottesville, VA.

Pianta, R. C. (1992). *Child-Parent Relationship Scale*. Unpublished measure, University of Virginia, Charlottesville, VA.

Pianta, R. C., & Marvin, R. S. (1992). *The Reaction to Diagnosis Interview.* Child-Parent Attachment Project, University of Virginia.

Special Issues of Journals Edited

Developmental perspectives on school outcomes for risk and non-risk populations. (1997). Special Issue of the *Journal of School Psychology, 35(1).*

Developmental perspectives and the practice of school psychology. (1996). Special Issue of the *Journal of School Psychology, 34(3).*

Beyond the parent: The role of other adults in children's lives*.* (1992). *New Directions in Child Development, Vol. 57.* San Francisco: Jossey-Bass.

Selected Presentations/Conferences

Pianta, R. C. (2015, March). Symposium: Intervention impacts on the nature and quality of teacher-student interactions: Implications for scale-up and efficiency. Society for Research on Child Development, Biennial Meeting, Philadelphia, PA.

Pianta, R. C. (2014, November). *Elevating the capacity of classroom experiences for promoting students' learning and development: Observation and improvement of teacher-child interactions.* Southern Regional Education Board, Louisville, KY.

Pianta, R. C. (2014, October). *Improving teacher-student interactions: Classroom observation and professional development.* Center of Excellence Research Consortium. Columbia, SC.

Pianta, R. C. (2014, July). Plenary Lecture: *Ensuring children's success in school: Effective teacher-child interactions in early education.* International Conference on Child Development in School & Community Settings, Rotterdam, The Netherlands.

Pianta, R. C. (2013, October). Keynote: *Risky teacher-student relationships—Analyses and interventions.* Pre-Conference Workshop: *Investigating and improving teacher-student relationships in the classroom.* Teacher-Student Relationships within the Educational System; German Institute for Human Rights and the University of Potsdam. Potsdam, Germany.

Pianta, R. C. (2013, July). Dean's Lecture: *Improving impacts of classrooms: Professional development and observation of teacher-student interactions.* University of Melbourne, Australia.

Pianta, R. C. (2013, July). Keynote: *Elevating the capacity of classroom experiences for promoting students' learning and development: Observation and improvement of teacher-child interactions.* Social Psychology of the Classroom Conference, Auckland, New Zealand.

Pianta, R. C. (2013, May). Guest Speaker: *The critical need for an integrated early childhood & K-12 education strategy.* Education Counsel and the national Public Education Support Fund (NPESF), Washington, DC.

Pianta, R. C. (2013, May). Keynote: *Improving impacts of classrooms: Professional development and classroom observation.* University of Florida College of Education and Miami-Dade County Public Schools Retreat, Tampa, FL.

Pianta, R. C. (2013, April). Discussant and Presenter, Society for Research in Child Development, Seattle, WA.

Pianta, R. C. (2013, April). Discussant and Presenter, Virginia Department of Education Retreat. University of Virginia, Charlottesville.

Pianta, R. C. (2013, April). Invited Presenter. *Tom Talks:Innovate Charlottesville. Innovate the World.* Charlottesville, VA.

Pianta, R. C. (2013, February). Keynote speaker, Community Breakfast, Children, Youth, & Family Services, Charlottesville, VA

Pianta, R. C. (2012, October). *Improving impacts of classrooms: Professional development and classroom*

observation. University of California, Berkeley, CA.

Pianta, R. C. (2012, September). Robbie Case Public Lecture: *Elevating the capacity of classroom experiences for promoting students' learning and development: Observation and improvement of teacher-student interactions.* University of Toronto, Ontario, Canada.

Pianta, R. C. (2012, September). *The cost factor: Making evaluation systems more efficient.* Panelist, Revisiting Teacher Evaluation: A Leadership Forum on Using Data to Improve Teaching and Learning. Carnegie Foundation for the Advancement of Teaching, Washington, DC.

Pianta, R. C. (2012, July). *How much faith should we have in observation as an evaluation tool? What have we done right and wrong when it comes to observation?* Discussant. Teacher Quality 2.0: Getting evaluation design right: Developing and implementing better educator evaluation systems. American Enterprise Institute for Public Policy Research, Washington, DC.

Pianta, R. C. (2012, June*). Improving and understanding impacts of classrooms: Teacher-child interaction, observation and professional development*. Canadian Institute for Advanced Research: Experience-Based Brain and Biological Development, Ontario, Canada.

Pianta, R. C. (2012, June). *Design of 21st century school model*. Bahcesehir University, Istanbul, Turkey.

Pianta, R. C. (2012, June). *Experience-based brain and biological development program*. Canadian Institute for Advanced Research, Alton, Ontario.

Pianta, R. C. (2012, June). *Early learning roundtable.* U.S. Department of Education, Washington, DC.

Pianta, R. C. (2012, May). *What does it take to improve quality and impact of early care and education?* Educational Testing Services, Princeton, NJ.

Pianta, R. C. (2012, April). *Building the relational capacity of early care and education*. Zero to Three Conference, Washington, DC.

Pianta, R. C. (2012, March). William C. Friday Distinguished Lecture: *Improving impacts of classrooms: Professional development and classroom observation.* University of North Carolina at Chapel Hill.

Pianta, R. C. (2012, March). *What does it take to improve quality and impact of early care and education?* Educare Learning Network meeting, Kansas City, MO.

Pianta, R. C. (2012, March). Panelist: *Observations and teacher effectiveness, Multiple measures of effective teaching*. SREE Spring 2012 Conference, Washington, DC.

Pianta, R. C. (2011, May). Keynote: *What do we know about quality? What works to improve quality and produce better child outcomes?* National Smart Start Conference, Greensboro, NC.

Pianta, R. C. (2011, April). *Using observation to improve teaching and learning*, Inaugural Symposium, University of Virginia, Charlottesville, VA.

Pianta, R. C. (2011, April). Discussant and Presenter*, Changing classroom processes and practices to improve outcomes for students: Intervention strategies and outcomes; Interplay between biological and behavioral reactivity and social experiences across different school contexts; Effective approaches for improving quality and school readiness,* Society for Research in Child Development Conference, Montreal, Canada.

Pianta, R. C. (2011, March*). Frameworks for using QRIS data to improve quality: Systems, program and alignment*, 2011 National QRIS Conference, Washington, DC. Also presented at Florida Early Learning Advisory Council meeting, Tampa, FL, June 2011.

Pianta, R. C. (2011, March). *Building better teachers: Academic, social, and emotional benefits of positive student-teacher interaction*. Atlanta Speech School, Atlanta, GA.

Pianta, R. C. (2011, March). *Access and quality: Ensuring impacts of investments in early education and care*. First 5 California and the Water Cooler Joint Conference on Early Learning, Research, Practice, and Policy. Consultant to First 5 California, Sacramento, CA. Also presented at University of Pennsylvania, Philadelphia, PA, January 2011.

Pianta, R. C. (2011, February). *Improving impacts of classrooms: Professional development and classroom observation*, NASP Convention-Distinguished Lecture, San Francisco, CA.

Pianta, R. C. (2011, February). *Building better teachers: Transforming P-12 education*, Head Start Summit, Baltimore, MD.

Pianta, R. C. (2011, January). *Using standardized observation to measure and improve teacher effectiveness*, U.S. Department of Education, Washington, DC.

Pianta, R. C., & Allen J. P. (2010, December). *My Teaching Partner: Impacts and classroom practices and students*, William T. Grant Foundation Intervention Grantees Meeting, Washington, DC.

Pianta, R. C. (2010, November). *National Center for Research on Early Childhood Education findings*. Fifth Annual Leadership Symposium, National Center for Research on Early Childhood Education,

Arlington, VA.

Pianta, R. C. (2010, October). Co-Chair, National Expert Panel: *The importance of integrating developmental sciences knowledge into educator preparation curriculum*. NCATE Developmental Sciences Briefing, Washington, DC.

Pianta, R. C. (2010, August). *Building an effective early education system: High-quality classrooms and supportive transitions*, The University of Tokyo, Tokyo, Japan.

Pianta, R. C. (2010, July). *The state of pre-K research: Advances made and unanswered questions.* Partner Network Meeting, Pre-K Now, Washington, DC.

Pianta, R. C. (2010, July). *Access to quality: The key issue in ensuring impacts of early childhood education and care investments.* Birth to Five Policy Alliance National Meeting, Denver, CO.

Pianta, R. C. (2010, June). *Caregivers and children: Understanding relationships, understanding development.* Head Start's Tenth National Research Conference, Washington, DC.

Pianta, R. C. (2010, May). *Quality and impacts of pre-K: Observing and improving teacher-child interactions.* The Texas School Ready! Summit, Children's Learning Institute, Austin, TX.

Pianta, R. C. (2010, April). *Classroom observation at scale: Classroom Assessment Scoring System (CLASS).* Teacher Evaluation Working Group, The Parthenon Group, Memphis, TN.

Pianta, R. C. (2010, April). Barbara Lemann Lecture: *Improving impacts of classrooms: Professional development and classroom observation*. Tulane University Health Sciences Center, New Orleans, LA. Also presented at The Institute for Research on Education Policy & Practice Colloquium, Stanford University School of Education, Stanford, CA; Bank Street College of Education, New York, NY, February 2009; New York University Proseminar, New York, NY, September 2009; Center for Developmental Science, University of North Carolina at Chapel Hill, October 2010; Georgia State University, Atlanta, GA, October 2010; American Psychological Association Division 15 - Educational Psychology Program, Washington, DC, August 2011; and Rutgers Edward J. Bloustein School of Planning and Public Policy, New Brunswick, NJ, November 2011.

Pianta, R. C. (2010, March/April). Discussant and Presenter*, Coaching and coursework impacts on preschool teachers' interactions with children,* Society for Research in Child Development Conference, Montreal, Canada.

Pianta, R. C. (2010, February). Keynote: *Improving classroom impact*. Association Montessori International – USA, Jacksonville, FL.

Pianta, R. C. (2009, December). *Standardized observation and improvement of teacher-child interactions: CLASS and MyTeachingPartner.* National Summit on the Science of Professional Development in Early Childhood Education, Georgetown University, Washington, DC.

Pianta, R. C., & Comer, J. (2009, November). National Expert Panelist, *The lack of application of child and adolescent development knowledge and how this hinders student learning in schools*, NCATE/FCD, Washington, DC.

Pianta, R. C. (2009, November). *Classroom experiences and learning outcomes for DLL students: An agenda for educators, practitioners, and policymakers*, National Center for Research on Early Childhood Education, Arlington, VA.

Pianta, R. C. (2009, November). *Standardized observation of teachers' interactions with children: The Classroom Assessment Scoring System; Improving the quality and impact of teacher-child interactions: MyTeachingPartner, The Initiative for Applied Education Research*, Jerusalem, Israel.

Pianta, R. C. (2009, October). *Impact of high-quality Pre-K on longer term outcomes and school systems*. First Five Years Fund Panel Discussion, Washington, DC.

Pianta, R. C. (2009, October). Panelist and Discussant: *How has/should a developmental perspective inform the field of prevention science?* 36th Minnesota Symposium on Child Psychology, Minneapolis, MN.

Pianta, R. C. (2009, February). *Kids & teachers: What makes for success in school*, Venable PTO, Charlottesville, VA.

Pianta, R. C. (2008, December). *Making the most of early learning: Children and teachers in the classroom*, National Conference of State Legislatures, Atlanta, GA.

Pianta, R. C., Burchinal, M., Hamre, B., & Meisels, S.(2008, November). *Enhancing the quality of teacher-child interactions and their effects on children's learning*, NAEYC Conference, Dallas, TX.

Pianta, R. C. (2008, November). *Instructional, organizational, and emotional support for achievement*, Education Trust Conference, Washington, DC.

Pianta, R. C., & Bowman, B. (2008, November*). Effective professional development with early education

teachers preK-3, Institute on Pre-K, Harvard University, Boston, MA.

Pianta, R. C. (2008, November*). Looking inside classrooms: What do we know about quality teaching?* Education Policy Initiative, University of Michigan, Ann Arbor, MI.

Pianta, R. C. (2008, October). Expert Panelist, *Evolution of teaching*, NASBE Annual Conference, Arlington, VA.

Pianta, R. C. (2008, October). *Increasing the application of knowledge about child and adolescent development and learning in educator preparation,* NCATE/FCD National Expert Panel, Arlington, VA.

Pianta, R. C. (2008, October). Presenter and Expert Panelist, *Strategies for professional development of the early childhood workforce: What are we learning from research*?, A Working Meeting on Recent School Readiness Research: Guiding the Synthesis of Early Childhood Research, NCATE, Washington, DC.

Pianta, R. C. (2008, September). Panelist, Connecticut Governor's Forum: *Linking ready kids to ready schools*, Hartford, CT.

Pianta, R. C., & Downer, J. (2008, June). *Improving the quality of teacher-child interactions through focused observation and consultation: MyTeachingPartner*. National Association for the Education of Young Children, New Orleans, LA.

Pianta, R. C., & Downer, J. (2008, June). *Improving the quality of teacher-child interactions through focused observation and consultation: MyTeachingPartner*. National Association for the Education of Young Children, New Orleans, LA.

Pianta, R. C. (2008, June*). Classroom interactions, credentials, and child outcomes: Improving early education*, Head Start's Ninth National Research Conference, Washington, DC.

Pianta, R. C. (2008, May). National Expert Panel for NCATE, *Increasing the application of knowledge about child and adolescent development in educator preparation programs*, Washington, DC.

Pianta, R. C., & Hamre K. (2008, May). *Conceptualization, measurement, and improvement of classroom processes: Standardized observation as a metric for teacher quality and effectiveness,* Conference on Teacher Quality, Northwestern University, Evanston, IL.

Pianta, R. C. (2008, April). *Opportunity in early education: Improving the quality of teacher-child interactions through classroom observation and professional development*, University of Nebraska, Lincoln, NE.

Pianta, R. C. (2008, April). Keynote: *How can we improve child outcomes in Head Start through teacher-child relationships?* National Head Start Association, Nashville, TN.

Pianta, R. C. (2008, April). *The value of teacher/child relationships in improving child outcomes.* National Head Start Association Conference, Nashville, TN.

Pianta, R. C. (2008, March). Roundtable discussion, *Identifying thresholds of preschool quality that maximize children's development*, SREE, Crystal City, VA.

Douglas, K., Roller, C., & Pianta, R. (2008, March). *The science of observing child-teacher interactions in PK-3rd grade classrooms.* American Educational Research Association, New York, NY.

Henry, A., Mashburn, A., Grimm, K., & Pianta, R. (2008, March). *Identifying thresholds of preschool quality that maximize children's development.* Poster/roundtable discussion. Annual Research Conference, Society for Research on Educational Effectiveness, Crystal City, VA.

Pianta, R. (2008, January). *Developing the next wave of quality measures for early childhood and school-age programs.* Presenter/Panelist, Office of Planning, Research and Evaluation and the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Washington, DC.

Pianta, R. (2007, December). *School readiness and the transition to kindergarten in the era of accountability.* Faculty Author Series, University of Virginia, Colonnade Club, Charlottesville, VA.

Pianta, R. (2007, November). *School readiness and the transition to kindergarten.* Charlottesville Preschool, Charlottseville, VA.

Meisels, S., Pianta, R., Jones, J., & Moore, M. (2007, November). *How assessment and standards can support states' learning goals for young children*. NAEYC 2007 Annual Conference & Expo, Chicago, IL.

Pianta, R., (2007, September). Participant, Wingspread Conference, *Using research to improve outcomes for young children: Challenges, strategies, and effective action.* Sponsored by The Johnson Foundation, NAEYC, and SRCD, Racine, WI.

Pianta, R. (2007, September). *Making early education opportunities work for kids and teachers: Professional development and classroom observation.* Minnesota State Department of Education,

Minneapolis, MN.

Pianta, R. (2007, September). *How can research and practice in school psychology matter for helping students and teachers?* 2007 Distinguished Alumni Presentation, University of Minnesota, Minneapolis, MN.

Pianta, R. (2007, September). *Quality in early care and education: It's all about relationships.* McEvoy Lecture, University of Minnesota, Minneapolis, MN.

Pianta, R. (2007, July). *Making early education opportunities work for kids and teachers: Professional development and classroom observation.* International Attachment Conference, Braga, Portugal.

Pianta, R. (2007, July). *Covering pre-k: Finding stories that truly matter.* Harold W. McGraw Jr. Annual Seminar for Reports New to the Education Beat, Hechinger Institute on Education and the Media, New York, NY.

Pianta, R. (2007, July). *Effects of web-mediated professional development.* School Reform and Beyond Design Conference, Ann Arbor, MI.

Pianta, R. (2007, June). *Aligning children's development with teacher competencies.* The Governor's Early Childhood Summit: Aligning the Continuum of Early Childhood Development, Richmond, VA.

Pianta, R. (2007, May). Keynote: *Conversations to make the most of early childhood education.* Ready at Five Partnership School Readiness Symposium, Columbia, MD.

Pianta, R. (2007, April). Distinguished Guest Lecture Series, East China Normal University, Shanghai, China.

Lima, Olivia, Downer, J., Pianta, R., Houlihan, E., & Hamre, B. (2007, March). *Observational assessment of children in a preschool environment.* Poster, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Downer, J., Hamre, B., Pianta, R., & Hadden, S. (2007, March). *Predicting the quality of teacher-child interactions in pre-kindergarten classrooms: Patterns across activity settings.* Poster, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Mashburn, A., Pianta, R., Downer, J., & Hamre, B. (2007, March). *MyTeachingPartner: Effects of a web-based intervention to improve teacher quality.* Poster symposium, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Jerome, E. M., Hamre, B. K., & Pianta, R. C. (2007, March). *Teacher-child relationships from kindergarten to sixth grade: Trajectories of conflict and closeness.* Student poster symposium, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Hamre, B. K., & Pianta, R. C. (2007, March). *Growth models of classroom quality over the course of the year in preschool programs.* Paper symposium, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Driscoll, K., & Pianta, R. (2007, March). *Banking time in Head Start: Effectiveness of an intervention designed to promote supportive teacher-child relationships.* Poster, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Wilson, H. K., Pianta, R. C., & Stuhlman, M. W. (2007, March). *The role of classroom climate in the development of social competencies in the first grade.* Poster, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Mashburn, A., Hamre, B., Pianta, R., & Downer, J. (2007, March). *Three dimensions of child-teacher interactions in PK-third grade classrooms.* Paper symposium, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Pianta, R., & Hamre, B. (2007, March). *Using web-based feedback to improve teacher-child interactions in pre-kindergarten.* Paper symposium, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Jacobson, L., & Pianta, R. (2007, March). *Executive function skills and children's academic and social adjustment to middle school.* Poster, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

LoCasale-Crouch, J., & Pianta, R. C. (2007, March). *Systemic, standardized observation in early childhood teacher development.* Paper symposium, Society for Research in Child Development, 2007 Biennial Meeting, Boston, MA.

Pianta, R. C. (2007, February). *Using classroom observations to assess the quality of teacher-student interactions.* Classroom Measurement Meeting, sponsored by The Spencer Foundation & W. T. Grant Foundation, Chicago, IL.

Pianta, R. C. (2007, January). *Making early education opportunities work for kids and teachers:*

Professional development and classroom observation. Great Expectations Conference, sponsored by the Chicago Metro AEYC and the Erikson Institute, Chicago, IL.

Pianta, R. C. (2007, January). *Quality issues in early childhood teacher preparation.* Faculty Forum: Early Childhood Quality Network and Ohio Department of Education, Columbus, OH.

Pianta, R. C. (2006, November). *NAECS/SDE: Making early education opportunities work for kids and teachers: Professional development and observation.* NAEYC Annual Conference, Atlanta, GA.

Pianta, R. C. (2006, November). *Updates from the Interagency School Readiness Consortium: Lessons learned about providing professional development.* NAEYC Annual Conference, Atlanta, GA.

Pianta, R. C. (2006, November). *Ready schools: Transition practices and quality classrooms.* Pre-kindergarten Staff Development Day, Norfolk, VA. Sponsored by United Way of South Hampton Roads, Norfolk Public Schools, and Smart Beginnings South Hampton Roads Coalition.

Pianta, R. C. (2006, September). Invited panelist, *The health of democracy at home and abroad*, The Miller Center and the University of Virginia, Charlottesville, VA.

Pianta, R. C. (2006, June). *Observing interactions in classrooms: Experiences from two national-level studies.* National Children's Study Federal Advisory Committee Meeting, Bethesda, MD.

Pianta, R. C. (2006, May). *Transition planning and ready schools: Frameworks, policies, and practices for connecting families, programs, and schools.* Milwaukee United for Successful Transitions. Milwaukee Public Schools, Milwaukee, WI.

Konold, T. R., & Pianta, R. C. (2006, April). *Measuring method variance in child behavior observations: A comparison of mothers, fathers, and teachers.* American Educational Research Association (Division E), San Francisco, CA.

Pianta, R. C. (2006, April). *Enhancing the transition to kindergarten: Linking children, families, and schools.* Fairfax Future: Investing in School Readiness, Fairfax, VA.

Pianta, R. C. (2006, January). *Observations in classrooms: Implications and outcomes.* National Association of State Boards of Education, Alexandria, VA.

Pianta, R. C. (2006, January). *Going to kindergarten: Key skills and experiences.* Success by 6 Summit, Coalition of the Shenandoah Valley, James Madison University, Harrisonburg, VA.

Pianta, R. C. (2005, November). *Kids and teachers: The ingredients of success in school.* Florida Educational Research Association, Miami, FL.

Pianta, R. C. (2005, October). *Ready schools: Transition practices and quality classrooms.* Indiana Institute on Disability and Community / Early Childhood Center, Indiana University, Indianapolis, IN.

Pianta, R. C. (2005, May). Keynote, Workshop Leader: *Ready schools: Transition practices and quality classrooms*, Massachusetts Department of Education, Marlboro, MA.

Pianta, R. C. (2005, April). Discussant, Paper Symposium: *Kindergarten experiences and early academic trajectories: New evidence from the ECLS-K.* Society for Research in Child Development, 2005 Biennial Meeting, Atlanta, GA.

Pianta, R. C. (2005, April). Chair, Paper Symposium: *What can the study of schools and schooling contribute to understanding development and how it can be studied?* Society for Research in Child Development, 2005 Biennial Meeting, Atlanta, GA.

Pianta, R. C. (2005, April). Co-author, Paper Symposium: *State prekindergarten systems: Linking policies, implementation, quality, and child outcomes.* Society for Research in Child Development, 2005 Biennial Meeting, Atlanta, GA.

Pianta, R. C. (2005, April). Participant, Discussion Hour: *Overcoming obstacles in conducting school-based research.* Society for Research in Child Development, 2005 Biennial Meeting, Atlanta, GA.

Pianta, R. C. (2005, April). Co-author, Paper Symposium: *Early child care and children's development in the primary grades: Results from three large longitudinal studies.* Society for Research in Child Development, 2005 Biennial Meeting, Atlanta, GA.

Pianta, R. C. (2005, April). Discussant, Paper Symposium: *Antecedents of the early teacher-child relationship.* Society for Research in Child Development, 2005 Biennial Meeting, Atlanta, GA.

Pianta, R. C. (2005, April). Co-author, Poster Session: *Classroom process and early achievement.* Society for Research in Child Development, 2005 Biennial Meeting, Atlanta, GA.

Early, D., Bryant, D., Howes, C., Burchinal, M., Pianta, R., Clifford, R., & Barbarin, O. (2005, April). Paper Symposium: *Ready to learn? Predictors of children's gains in pre-kindergarten programs and the implications for policy.* Society for Research in Child Development, Atlanta, GA.

Downer, J., La Paro, K., Rimm-Kaufman, S., & Pianta, R. (2005, April). Poster: *Teacher-child behaviors in the kindergarten classroom: A two-level analysis.* Society for Research in Child Development,

Atlanta, GA.

Pianta, R. C. (2005, March). *Kids and teachers: What makes for success in school?*, Engaging the Mind, UVA's Statewide Community Lecture Series, University of Virginia, Charlottesville, VA.

Pianta, R. (2004, November). *What's going on in pre-k and primary grade classrooms?* The Pew Seminar on Coverage of Early Childhood Education, Hechinger Institute on Education and the Media, Columbia University, Singer Island, FL.

Pianta, R. C. (2004, November). *School as context for development: Readiness and relationships.* The School Readiness Conference, Family Life Project, University of North Carolina at Chapel Hill.

Pianta, R. C. (2004, June). *NCEDL's multi-state study of pre-kindergarten: Characteristics, quality, & practices.* Head Start's 7th National Research Conference, Washington, DC.

Pianta, R. C. (2004, April). *Ready schools: The transition to school and quality of experiences in K-12 classrooms.* NIH Human Development Conference, Fairfax, VA.

Pianta, R. C. (2004, March). *Research on child-teacher relationsips, classroom process, and observation: Toward aligning accountability, professional development, and access to quality.* School of Education, University of Wisconsin, Madison, WI.

Pianta, R. C. (2004, February). *Going to kindergarten: Transition models and practices.* Transition Forum, Child and Family Policy Center, Association for Chidlren of New Jersey, New Jersey Education Association, and the new Jersey Department of Education, Rutgers University, NJ.

Pianta, R. (2004, February). *Conceptualizing and assessing readiness from both sides: What we know about children and classrooms at entry to school.* Panel member, presenter. American Association for the Advancement of Science, Seattle, WA.

Pianta, R. (2004, January). *Children's experiences in pre-k, kindergarten, and early elementary classrooms.* National Association of State Boards of Education, Alexandria, VA.

Pianta, R. C. (2003, November). *Going to kindergarten: Transition models and practices.* University of Western Sydney, Sydney, Australia.

Pianta, R. C. (2003, October). *Social and relational processes in elemenary school classrooms*. Center for Children, Relationship, and Culture. University of Maryland, College Park, MD.

Pianta, R. C. (2003, October). *Social and relational processes in elementary school classrooms*. Human Development and Psychology, Graduate School of Education, Harvard University, Cambridge, MA.

Pianta, R. C. (2003, May). *Enhancing the transition to kindergarten: Linking children, families, and schools.*   Keynote address. Responsive Full-Day Kindergartens: Preparing for Children and Families, Massachusetts Department of Education, Marlboro, MA.

Pianta, R. C. (2003, May). *Going to kindergarten: Transition models and practices and quality of classroom settings.* Fourth National Meeting of the School Readiness Indicators Initiative, Kansas City, MO.

Pianta, R. C. (2003, May). *Observing in early educational classrooms: Lessons for policy, educational research, and the future of professional development.* Northwestern University, Evanston, IL.

Pianta, R. C. (2003, May). *Quality of teacher-child relationships: The implications of observational research for re-designing professional development.* Spring Scientific Meeting: Relationship-based child care; What we know and what we need to know. Zero to Three: National Center for Infants, Toddlers and Families, Washington, DC.

Pianta, R. C. (2003, April). *Large-scale observations of first and third grade classrooms: What kids and teachers do and whether it relates to teachers' credentials and experience.* Curry Spring Speaker Series on Risk and Prevention, Curry School of Education, University of Virginia, Charlottesville, VA.

Pianta, R. (2003, April). *Starting school from low-income homes.* Discussant. Society for Research on Child Development, Tampa, FL.

Pianta, R., & Early, D. (2003, April). *Preschool teachers and classrooms: Results from the National Center for Early Development and Learning Six-State Study.* The Child-Care Workforce. Society for Research on Child Development, Tampa, FL.

Wiechel, J., Pianta, R., Hughes, K., Espinosa, L., & Eagertson, H. (2002, November). *Kindergarten: Gate or gateway?* President's Seminar, National Association for the Education of Young Children, New York, NY.

Bryant, D., Clifford, R., Early, D., Pianta, R., Ritchie, S., Trammel, C., Hawley, S., French, A., Gallagher, C., Denno, D., & Henderson, K. (2002, November). *What is Pre-K? Preliminary findings from a six state pre-kindergarten study.* National Association for the Education of Young Children, New York, NY.

Pianta, R. C. (2002, October). *Experiences in P-3 classrooms: The implications of observational research for redesigning early education.* Foundation for Child Development, New York, NY.

Pianta, R. C. (2002, September). *Research that matters for children and families: Interdisciplinary, large-scale long-term studies in community-based settings.* Texas A&M University, College Station, TX.

Pianta, R. C. (2002, April). *Validity and value of research on the transition of children into kindergarten—What parents need to know.* Symposium presented at the American Educational Research Association, New Orleans, LA.

Pianta, R. C. (2002, March). *Transition to school: Building links among families, schools, and communities.* Maryland Department of Education, Howard County, MD.

Pianta, R. C. (2002, March). *It's about child care and so much more....* Congressional Briefing: The Congressional Child Care Caucus. Consultant to the Society for Research in Child Development and the American Psychological Association, Washington, DC.

Pianta, R. C. (2001, September). *Relationships between teachers and children: Effects on child outcomes and implications for research, practice, and policy.* Department of Psychology, University of South Carolina, Columbia, SC.

Pianta, R. C. (2001, August). *Early teacher-child relationships and children's social and academic performance through eighth grade.* *X*th European Conference on Developmental Psychology, Uppsala, Sweden.

Pianta, R. C., & Friedman, S. (2001, June). *The NICHD Study of Early Child Care: Findings and discussion.* NAEYC's 10th Annual Conference: National Institute for Early Childhood Professional Development, Washington, DC.

Pianta, R. C. (2001, May). *Social, emotional, and cognitive school readiness.* Congressional Briefing: The Congressional Child Care Caucus, "Early childhood care and education: What policymakers need to know," Consultant to the Society for Research in Child Development and the American Psychological Association, Washington, DC.

Pianta, R. C. (2001, May). *Enhancing relationships between teachers and children.* Central Virginia Association for the Education of Young Children, Charlottesville, VA.

Pianta, R. C. (2001, May). *Transition to school: Building links among families, schools, and communities.* Presentation at the Annual Innovative strategies for All Young Children Conference, Curry School of Education, University of Virginia, Charlottesville, VA.

Pianta, R. C. (2001, April). *What large-scale surveys can and cannot tell us about education policy issues.* Panel discussant, Symposium, Annual meeting of American Educational Research Association, Seattle, WA.

NICHD Early Child Care Research Network. (2001, April). *Experiences in first grade classrooms: The other side of school readiness.* Paper presented at the biennial meeting of the Society for Research in Child Development, Minneapolis, MN (Pianta presenter).

Stuhlman, M., & Pianta, R. C. (2001, April). *Assessing teacher child relationships through narratives: Associations with behaviors in the classroom.* Paper presented at the biennial meeting of the Society for Research on Child Development, Minneapolis, MN.

Pianta, R. C. (2001, April). *Longitudinal studies of competence and educational outcomes.* Paper presented at the biennial meeting of the Society for Research on Child Development, Minneapolis, MN.

Pianta, R. C. (2001, April). *The other side of school readiness: Observations in first grade classrooms in the NICHD Study of Early Child Care.* Paper presented at the biennial meeting of the Society for Research on Child Development, Minneapolis, MN.

Pianta, R. C. (2001, February). *Relationships between children and teachers in elementary school: Assessment and prediction of children's academic and social outcomes.* University of Minnesota, Minneapolis, MN.

Pianta, R. C. (2000, December). *Research on readiness and the transition to school.* Pennsylvania State University, Harrisburg, PA.

Pianta, R. C. (2000, October). *Social processes in early education: Relationships between children and teachers.* Colloquium offered at the University of Delaware, Newark, DE.

Stuhlman, M., & Pianta, R. (2000, June). *A narrative approach to assessing child-teacher relationships: Associations with behavior in classrooms.* A poster presented at the Ninth Annual Conference of NAEYC's National Institute for Early Childhood Professional Development, San Francisco, CA.

Pianta, R. C. (2000, June). *Bringing the study of teachers and classrooms to prevention science.*

Roundtable discussion at Annual Meeting of the Society for Prevention Research, Montreal, Canada.

Pianta, R. C. (2000, February). *Schools that work for all children: Relationships and resilience*. Keynote speaker, The Twelfth Collaborative Conference for Special Education, Courage to Risk, Colorado Springs, CO.

Lloyd, J. W., Pianta, R. C., Lundren, K., & Burgess, K. (1999, December). *Predicting phonemic awareness in kindergarten: teachers' ratings of children's skills in preschool*. Paper presented at National Reading Conference, Orlando, FL.

Pianta, R. C. (1999, November). *Social processes in early education: Relationships between teachers and children*. Colloquium offered at the University of North Carolina at Chapel Hill, School of Education.

Sheeran, T., Marvin, R. S., & Pianta, R. C. (1999, August). *Mental models of marital relationships: Evaluating the spouse relationship interview*. Poster presented at the American Psychological Association Annual Convention, Boston, MA.

NICHD Early Child Care Research Network. (1999, August). *Child care and cognitive and socioemotional development through the preschool years*. Paper presented at the American Psychological Association Annual Convention, Boston, MA.

Pianta, R. C. (1999, August). *Promoting literacy before and after school entry: Classroom activities and transition practices*. Presentation at American Psychological Association Annual Convention, Boston, MA.

Pianta, R., Rimm-Kaufman, S., Sayre, M., La Paro, K., & Hamre, B. (1999, June). *Research studies on the transition to kindergarten*. Poster presented at the Annual Project Directors' Meeting, NIECDE, Washington, DC.

Weiss, K. L., Pianta, R. C., & Marvin, R. S. (1999, April). *Patterns of family adaptation to childhood chronic illness*. Poster presented at the Seventh Florida Conference on Child Health Psychology, Gainesville, FL.

Burgess, K., Lundgren, K., Lloyd, J., & Pianta, R. C. (1998, December). *Literacy instruction for at-risk preschoolers: Self-reported teacher beliefs and practices*. Paper presented at the National Reading Conference, Austin, TX.

Rimm-Kaufman, S. E., & Pianta, R. C. (1998, July). *Differences in family involvement between kindergarten and preschool*. Poster presented at Head Start's Fourth National Research Conference. Washington, DC.

Pianta, R. C. (1998, April). *A national perspective on entry to school: The National Center for Early Development and Learning's Transition Practices Survey*. Symposium presented at the American Educational Research Association Annual Meeting, San Diego.

Rimm-Kaufman, S., Pianta, R. C., & Cox, M. J. (1998, April). *Teacher judgments of success in the transition to kindergarten*. Paper presented at the American Educational Research Association Annual Meeting, San Diego.

Early, D., & Pianta, R. C. (1998, April). *Kindergarten transition practices: Relations with teacher and classroom characteristics*. Paper presented at the American Educational Research Association Annual Meeting, San Diego.

Pianta, R. C. (1997, April). *The effects of early deprivation: Investigations of a continuum of caregiving experiences*. Symposium discussant, Biennial meeting of the Society for Research in Child Development. Washington, DC.

Pianta, R. C. (1997, April). *Family relationships in children with disabilities and chronic medical conditions*. Theodore D. Tjossem Memorial Lecture, Center on Human Development and Disability, University of Washington, Seattle, WA.

Pianta, R. C. (1997, April). *Assessing parents' representational models of relationships with their children*. Theodore D. Tjossem Memorial Workshop, Center on Human Development and Disability, University of Washington, Seattle, WA.

Pianta, R. C. (1996, April). *Social influences on school adjustment*. Symposium discussant. Annual meeting of the American Educational Research Association. New York, NY.

Pianta, R. C. (1996, April). *Children's relationships with teachers: Assessment, continuity, and linkages with school adjustment*. Symposium discussant. Annual meeting of the American Educational Research Association. New York, NY.

Pianta, R. C. (1996, March). *Relationship-based approaches in early intervention*. School of Education, University of North Carolina at Chapel Hill.

Pianta, R. C. (1995, October). *Relationship-based psychopathology in the preschool years.* Paper presented at the annual meetings of the American Academy of Child and Adolescent Psychiatry. New Orleans, LA.

Pianta, R. C., Morog, M. C., & Marvin, R. S. (1995, March). *Adult attachment status and mothers' behavior with their spouses.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Indianapolis, IN.

Pianta, R. C. (1995, March). *The Pictorial Scale of Perceived Competence and Acceptance: A discussion.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Indianapolis, IN.

Pianta, R. C. (1994, October). *Relationships, risk, and chronic illness in children.* Institute of Child Development, University of Minnesota.

Morog, M. C., Pianta, R. C., & Marvin, R. S. (1994, October). *Adult attachment status, parents' reaction to diagnosis, and child attachment status in children with a disability.* Paper presented at International Conference on Attachment, Toronto.

Pianta, R. C., & Marvin, R. S. (1994, September). *Parent-child interaction patterns.* Paper/workshop presented at the Epilepsy Foundation of America National Leadership Conference, Alexandria, VA

Pianta, R. C. (1994, March). *Attachment and parenting in children with cerebral palsy.* Grand Rounds, Department of Pediatrics, Methodist Hospital, St. Louis Park, MN.

Pianta, R. C. (1994). *Relationship-based approaches to assessment of children.* Grand Rounds, Department of Pediatrics, PHP, Minnetonka, MN.

Marvin, R. S., & Pianta, R. C. (1993, October). *Assessing parents' success in grieving their child's diagnosis.* Paper/workshop presented at the annual meeting of The American Association of Cerebral Palsy and Developmental Medicine, Nashville, TN.

Pianta, R. C., & Marvin, R. S. (1993, March). *Patterns of parents' reactions to their child's diagnosis: Relations with parent-child interaction.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, New Orleans, LA.

Lothman, D. J., & Pianta, R. C. (1993). *Mother-child interaction as a regulator of social development in children with epilepsy.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, New Orleans, LA.

Marvin, R. S., & Pianta, R. C. (1992, October). *Assessing parents' success in grieving their child's diagnosis.* Paper/workshop presented at the annual meeting of The American Association of Cerebral Palsy and Developmental Medicine, San Diego, CA.

Pianta, R. C. (1992, March). *Relationships and risk.* Psychology Department, Tulane University, New Orleans, LA.

Pianta, R. C., & Marvin, R. S. (1991, December). *Parents' representations of relationships and attachment behavior in children with cerebral palsy.* Symposium presented at the Biennial Training Institute of the National Center for Clinical Infant Programs, Washington, DC.

Pianta, R. C., & Artiles, A. (1991, September). *Research on children at-risk for failure in school.* Universidad de Landivar, Guatemala City, Guatemala, C. A.

Pianta, R. C., & Steinberg, M. (1991, April). *Relationships between children and kindergarten teachers: Associations with home and classroom behavior.* Paper presented at symposium "Relationships between Children and Non-Parental Adults: Research in School and Day Care Settings," R. Pianta (chair) at the biennial meeting of the Society for Research in Child Development, Seattle, WA.

Pianta, R. C., Lothman, D. L., & Clarson, S. (1990, November). *Predicting social behavior in children with epilepsy using measures of mother-child interaction, child behavior, and medical risk.* Poster presented at the Annual Meeting of the American Epilepsy Society, San Diego, CA.

Lothman, D., Pianta, R. C., Clarson, S., & Fowler, P. (1989, December). *Mother-child interaction in children with epilepsy: Relations with child competence.* Poster presented at the annual meeting of the American Epilepsy Society, Boston, MA.

Pianta, R. C. (1989, April). *Assessment of attachment behaviors in children with moderate to severe motor impairments.* Paper presented at symposium "Using the Strange situation with Special Populations," B. Vaughn (chair) at the biennial meeting of the Society for Research in Child Development, Kansas City, MO.

Pianta, R. C., & Castaldi, J. (1989, April). *Stability of depressive symptoms in five and six year old children.* Poster presented at the biennial meeting of the Society for Research in Child Development, Kansas City, MO.

Castaldi, J., & Pianta, R. C. (1989, March). *Depressive symptoms in five year old children.* Poster presented at the annual meeting of the National Association of School Psychologists, Boston, MA.

Pianta, R. C. (1987, April). *The relationship between different classifications of maternal stress and children's first grade outcomes.* Research display presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD.

Pianta, R. C., & Egeland, B. (1987, April). *Continuity and discontinuity in maternal caregiving at 6, 24 and 42 months in a high risk sample.* Research display presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD.

Pianta, R. C. (1987, March). *Developmental research on a high risk sample: Implications for practice.* Symposium presented at the annual meeting of the National Association of School Psychologists, New Orleans, LA.

Pianta, R. C. (1986, September). *The longitudinal effects of maternal life stress on the developmental outcomes of first grade children.* Paper presented at the annual meeting of the American Psychological Association, Washington, DC.

Pianta, R. C., & Egeland, B. (1985, April). *The effects of family intactness on children's developmental outcomes.* Research display presented at the biennial meeting of the Society for Research in Child Development Biennial Meeting, Toronto, Ontario, Canada.

Erickson, M., & Pianta, R. C. (1984, April). *Behavior problems in young children: Early identification and prevention.* Paper presented at the annual meeting of the National Association of School Psychologists, Philadelphia, PA.

Pianta, R. C. (1984, April). *Environmental effects on preschool intellectual development: Implications for intervention.* Paper presented at the annual meeting of the National Association of School Psychologists, Philadelphia, PA.

Ysseldyke, J., & Pianta, R. C. (1983, March). *Psychoeducational decision-making: Generalizations and implications for training and practice.* Paper presented at the annual meeting of the National Association of School Psychologists, Detroit, MI.

Cherkes, M., & Pianta, R. C. (1978, March). *Information processing: An approach to diagnosis and instruction.* Paper presented at the Gatlinburg Conference for Research in Mental Retardation, Gatlinburg, TN.

Professional and Public Service Presentations

Pianta, R. C. (2012, January). *Teacher Performance in the Classroom.* Teaching Quality Workshop, Inter-American Development Bank, Washington, DC.

Pianta, R. C. (2011, January). *Leadership and decision-making for effective classroom teaching.* Professional Development, New York City Department of Education, New York, NY.

Pianta, R. C. (2010, November). *Improving impacts of classrooms: Professional development and classroom observation.* Virginia Association of Elementary School Principals Annual Conference, Williamsburg, VA.

Pianta, R. C. (2008, February). *Current trends in early care and education.* Panelist/Presenter, Women United in Philanthropy, Charlottesville, VA.

Pianta, R. C., & Hamre, B. (2005, November). *Pathways to early school success: Early learning strategies for low-income children.* National Center for Children in Poverty, New York, NY.

Pianta, R. C. (2005, November). *Transition planning and ready schools: Frameworks, policies, and practices.* Child Care Solutions, Syracuse, NY.

Pianta, R. C. (2005, October). *MyTeachingPartner.* Academy for Educational Development Symposium, Charlottesville, VA.

Pianta, R. C. (2005, September). *Observing interactions in classrooms: The ingredients of school success.* Erikson Institute, Chicago, IL.

Pianta, R. C. (2005, April). *Transition planning and ready schools.* The Council of Chief State School Officers (CCSSO), St. Louis, MO.

Pianta, R. C. (2005, February). *Going to kindergarten: Transition models and practices.* Georgia Partnership for Successful School Transition, SmartStart Georgia, Atlanta, GA.

Pianta, R. C. (2005, February). *The social ecology of the transition to school: Classrooms, families, and children.* Center for Developmental Science, University of North Carolina at Chapel Hill.

Pianta, R. C. (2005, January). *Social and relational processesin elementary school classrooms.*

Psychology Department, University of North Carolina—Greensboro, Greensboro, NC.

Pianta, R. C. (2004, November). *Going to kindergarten: Transition models and practices.* Office of Early Childhood education, Ohio Department of Education, Columbus, OH.

Pianta, R. C. (2004, November). *Going to kindergarten: Transition models and practices.* Issues Regarding Transition to Kindergarten and Building Bridges for Smooth Transition. Stark County Educational Service Center, Canton, OH.

Pianta, R. C. (2004, September). *Teacher-child relationships.* Professional Development Meeting, Fairfax County Public Schools, Fairfax, VA.

Pianta, R. C. (2004, June). *The National Center for Early Development and Learning's multi-state study of pre-kindergarten: Quality, practices and child outcomes.* NAEYC's Professional Development Institute, Baltimore, MD.

Pianta, R. C. (2004, March). *Successful kindergarten transition.* SERC Transition to Kindergarten Conference, Connecticut Department of Education, Rocky Hill, CT.

Pianta, R. C. (2004, February). *Going to kindergarten: Transition models and practices.* Association for Children of New Jersey, New Jersey Education Association, New Jersey Department of Education, and Child and Family Policy Center, Newark, NJ.

Pianta, R. C. (2004, January). *Children's experiences in pre-k, kindergarten, and ealry elementary classrooms.* National Association of State Boards of Education, Alexandria, VA.

Pianta, R. C. (2004, January). *Enhancing relationships between children and teachers.* Fairfax County Public Schools, Alexandria, VA.

Pianta, R. C. (2003, November). *Transition to school: Building links among families, schools, and communities.* Ohio Department of Education, Center for Students, Families, Communities, Office of Childhood Education, Columbus, OH.

Pianta, R. C. (2003, September). *Children's experiences in pre-k, kindergarten, and early elementary classrooms.* Foundation for Child Development. New York, NY.

Pianta, R. C. (2003, September). *Getting children ready for school—What's needed?* Keynote presentation, Partnership for Children Readiness Conference. Charlottesville, VA.

Pianta, R. C. (2003, June). *Student-teacher relationships.* Three-day workshop presented to teachers and administrators from the school district of Atri, Italy. Atri, Italy.

Pianta, R. C. (2002, October). *NICHD and NCEDL Overview: Early Child Care and Children's Development Prior to School Entry.* Presentation to the Netherlands Child Care Delegation. The Netherlands Embassy, Washington, DC.

Pianta, R. C. (2002, April). *Curry's initiative in risk and prevention.* Presentation in conjunction with the Office of Development and the Curry School of Education Foundation. New York, NY.

Pianta, R. C. (2002, September). *Children's early literacy and relationships with adults.* Virginia Department of Education, Roanoke, VA.

Pianta, R. C. (2002, July). *Early learning: Transition to kindergarten*, Best Schools Leadership Initiative, Summer Academy. Keynote speaker/Workshop presenter, New Hampshire Department of Education, Concord, NH.

Pianta, R. C. (2002, April). *Nurturing the seedling.* Three-part workshop for the Ready to Learn Task Force for parents, administrators, and community/social workers. Keynote speaker, Breakfast of Champions, "Cultivating Community: Sowing Seeds for Success!" Department of Education, Dover, NH.

Pianta, R. C. (2002, April). *Being helpful to children and families.* Keynote address, John L. Snook Child Advocate Award Breakfast, Children, Youth & Family Services, Inc., Charlottesville, VA.

Pianta, R. C. (2001, October), *Banking time.* First Annual Conference for Parents, Head Start, Title I, Bright Stars and Family Support, Charlottesville, VA.

Pianta, R. C. (2001, July). *Enhancing the transition to kindergarten.* Governor's Institute for Early Childhood Educators. Juniata College, Huntington, PA.

Pianta, R. C. (2001, March). *The relationship model of transition.* New Hampshire Department of Health and Human Services, Head Start Conference, Manchester, NH.

Pianta, R. C. (2000, December). *Transition to school: Building links among families, schools, and communities.* Ready at Five Conference, Maryland State Department of Education, Baltimore, MD.

Pianta, R. C. (2000, October). *Banking Time.* Charlottesville Schools Professional Development Conference, Charlottesville, VA.

Pianta, R. C. (2000, October). *Enhancing relationships between children and teachers: How to build resilience in schools.* Charlottesville City Schools, Charlottesville, VA.

Pianta, R. C. (2000, August). *The kindergarten transition.* Workshop presented at the National Head Start Association Conference, Washington, DC.

Hamre, B., La Paro, L., & Pianta, R. (2000, June). *System for observing classroom quality in pre-kindergarten and the early grades.* A poster presented at the Ninth Annual Conference of NAEYC's National Institute for Early Childhood Professional Development, San Francisco, CA.

Pianta, R. C. (2000, June). *Enhancing relationships between children and teachers: How to build resilience in schools.* Albemarle County Leadership Retreat 2000, Charlottesville, VA.

Kraft-Sayre, M., Rimm-Kaufman, S., & Pianta, R. (2000, June). *Collaborative intervention to build relationships and smooth the transition to kindergarten.* A poster presented at the Ninth Annual Conference of NAEYC's National Institute for Early Childhood Professional Development, San Francisco, CA.

Pianta, R. C., & Kraft-Sayre, M. (2000, May). *Hartford Foundation for Public Giving, Brighter Futures Initiative, Transition to School Projects:* Hartford, CT.

Pianta, R. C. (2000, May). *Viewing families of children with special needs.* Innovative Strategies Conference, Curry School of Education, University of Virginia, Charlottesville, VA.

Panel discussant. (2000, May). George Graham Conference. Curry School of Education, University of Virginia, Charlottesville, VA.

Pianta, R. C. (2000, February). *Building stronger relationships between parents and children.* Workshop offered at The Twelfth Collaborative Conference for Special Education, Courage to Risk, Colorado Springs, CO.

Pianta, R. C. (2000, February). *Enhancing relationships between children and teachers: how to build resilience in schools.* Workshop offered at The Twelfth Collaborative Conference for Special Education, Courage to Risk, Colorado Springs, CO.

Pianta, R. C. (2000, February). *Developmental Approaches to School-Age Children with Emotional Disturbances.* Colloquium offered to the Bedford County School System and Centra Health, Bedford, VA.

Pianta, R. C. (1999, November). *Best practices in transition to school programs.* Workshop presented to the Hartford Foundation for Public Giving, Hartford, CT.

Pianta, R. C. (1999, October). *Investing in the education of young children.* Presented at The Rotary Club, Charlottesville, VA.

Pianta, R. C. (1999, May). *Applying the construct of resilience in schools.* Workshop presented at the New Jersey Association of School Psychologists Conference, Jamesburg, NJ.

Pianta, R. C. (1999, May). *Banking time.* Workshop, Innovative Strategies for All Young Children, Curry School of Education, University of Virginia, Charlottesville, VA.

Pianta, R. C. (1999, May). *What lies ahead for school psychology; building schools that work for all children.* Keynote speaker, New Jersey Associations of School Psychologists, Jamesburg, NJ.

Pianta, R. C. (1999, May). *Promoting relationships: A key to prevention.* Keynote speaker, Innovative Strategies for All Young Children, Curry School of Education, University of Virginia, Charlottesville, VA.

Pianta, R. C. (1998, October). *Ready, set, go: Preparing children for school success.* Workshop presented at Parents' Day, Curry School of Education, University of Virginia, Charlottesville, VA.

Pianta, R. C., & Gercke, N. (1998, October). *Predicting adjustment to school from data collected at school entry: The Charlottesville City School Kindergarten Screening Program.* Virginia Department of Education Research and Testing Conference, Tysons Corner, VA.

Pianta, R. C. (1998, April). *Use and effects of child care in the United States: Results from the NICHD Study of Early Child Care.* Paper presented at the Virginia State Department of Education State Operated Programs Conference, Richmond.

Pianta, R. C. (1998, March). *Child care, families, and children's competencies at age 3: Findings from the NICHD Study of Early Child Care.* Paper presented at Celebrating Literacy: Early Childhood Best Practices Conference, University of Virginia Department of Continuing Education, Charlottesville.

Pianta, R. C. (1995, April). *Starting school ready to learn: What we know about children and contexts from birth to school age.* Education Day, Curry School of Education, University of Virginia.

Pianta, R. C. (1995, May). *Observational assessment of the quality of child care.* Lynchburg Task Force on Child Care Quality. Lynchburg, VA

Pianta, R. C. (1994, November). *Society's stake in preschool.* Paper presented at the Conference on Preschool for At-Risk Children, Sponsored by the Urban League, Charlottesville, VA.

Pianta, R. C. (1992, November). *Assessment of severe emotional disturbance.* Charlottesville City Schools.

Pianta, R. C. (1991, May). *Children with severe emotional disturbance: Assessment and intervention.* Bedford County Schools, Bedford, VA.

Pianta, R. C. (1991, October). *A conversation with the editors of early childhood journals.* University of Wisconsin Early Schooling Conference, Madison, WI.

Pianta, R. C., & Erickson, M. F. (1990, April). *Family focused assessment and intervention with children from birth to five years.* Pre-convention workshop. National Association of School Psychologists Annual Meeting, San Francisco, CA.

Pianta, R. C. (1990, November). *Attachment relationships between children and adults--implications for educators.* Annual meeting of the Virginia Association of Independent Schools, Richmond, VA.

Pianta, R. C. (1989, October). *A briefing on strategies and programs for preparing teachers to meet the needs of at-risk students.* Virginia Association of Colleges of Teacher Education, Virginia Beach, VA.

Pianta, R. C. (1989, October). *Naturalistic assessment of infants, toddlers and preschool children.* Virginia Psychological Association, Richmond, VA.

Pianta, R. C. (1989, May). *Child neglect: Research, assessment and intervention.* Prince William County Social Services, Manassas, VA.

Eisenhart, C., & Pianta, R. (1989, October). *Teacher preparation programs for at risk children.* Conference on meeting the needs of at-risk students, Longwood College, Danville, VA.

Pianta, R. C. (1988, October). *Early identification and treatment of childhood disorders.* Central Virginia Interagency Council, Lynchburg, VA.

TEACHING

Funded Training Grants

Pianta, R. C., Rimm-Kaufman, S., & Wycoff, J. (2009-2014). *UVA Interdisciplinary Predoctoral Training Program in Educational Sciences*, U.S. Department of Education. $1,975,766 direct costs.

Pianta, R. C. (2006-2010). *Interdisciplinary postdoctoral research training fellowship in education sciences.* U.S. Department of Education. $592,865 direct costs.

Pianta, R., Rimm-Kaufman, S., & Justice, L. (2004-2009). *Interdisciplinary Doctoral Training Program in Risk and Prevention.* Institute of Educational Sciences, U.S. Department of Education, Washington, DC. $4,655,503 direct costs

Pullen, P., Snell, M., Pianta, R. C., & Justice, L. (2002-2007). *Interdisciplinary training for early childhood and development risk.* U.S. Department of Education, Office of Special Education and Rehabilitation Services. $1,500,000 direct costs.

Snell, M., & Pianta, R. C. (1997-2000). *Interdisciplinary training for early intervention and preschool personnel.* U.S. Department of Education, Office of Special Education and Rehabilitation Services. $569,494 total direct costs

Pianta, R. C., & Marvin, R. S. (1997-1999). *An early intervention training curriculum on parent-child relationships.* U.S. Department of Education, Office of Special Education and Rehabilitation Services. $393,990 total direct costs.

Pianta, R. C. (1992-1997). *Interdisciplinary specialty training of master's personnel in intervention with infants, toddlers, and families.* U.S. Department of Education, Office of Special Education and Rehabilitation Services. $580,000 total direct costs.

Pianta, R. C., & Hrncir, E. (1989-1992). *Multidisciplinary preparation of pre-service personnel in intervention with infants and families.* (HO29Q90012) U.S. Department of Education, Office of Special Education. $225,000 total direct costs.

Courses Taught

University of Virginia

EDIS 8500   *Proseminar: Innovations in Education*, Spring 2015
EDHS 1100   *Introduction to Youth and Social Innovations*, Fall 2014
PSYC 359:   *Research in Psychology,* Fall 2009-present
EDLF 730:   *Foundations of Educational Research,* Fall 2009-Spring 2010
EDHS 788:   *Field Project for ECDR Students*, Spring 2007-2008
EDHS 976:   *Research Design in Education Sciences*, Spring 2005-2007
EDHS 976:   *Seminar in School/Clinical Psychology -- Social and Affective Processes in the Development of Young Children*, 1993-2005.
USEM171:   *Society's Response to Children in Need*, Guest lecturer, Spring 1998.
EDHS 976:   *Seminar in School/Clinical Psychology -- Developmental Psychopathology in Infancy*, 1990-1993.
EDHS 865:   *Child Psychotherapy*, 1986-2005.
EDHS 589:   *Psychoeducational Assessment and Intervention with Young Children At Risk for School Failure,* Division of Continuing Education, 1987, 1989, 1990.
EDHS 864:   *Individual Intervention II: Techniques of Individual Psychotherapy*, 1986-1989.
EDHS 863:   *Individual Intervention I: Principles of Individual Psychotherapy*, 1986-1989.
EDIS 590:   *Assessment and Intervention with Infants with Special Needs*, Co-instructor with E. Hrncir, Spring 1990.
EDHS 589:   *Child Abuse*, Summer 1987.
EDHS 589:   *Psychological Assessment of Infants and Young Children*, Division of Continuing Education, Summer 1988.

Other Institutions

CPSY 5310:   *Sadness, Grief and Depression in Children and Adolescents,* University of Minnesota, Institute of Child Development, Summer 1985.
EPSY 5849:   *Assessment of the Preschool Child,* University of Minnesota, Department of Educational Psychology, Spring 1985.
PSYCH: *Psychology of Adjustment,* St. Mary's Junior College, Minneapolis, MN, Winter 1985.
PSYS 5313:   *Psychoeducational Assessment from Infancy to Preschool,* University of Minnesota, Department of Psychoeducational Studies, Summer 1984.

Webinars

Pianta, R. C. (2013, January). *Educator Effectiveness Models: Models and Considerations.* Webinar, SchoolNet, Inc.

Pianta, R. C. (2012, September). *Assessment of improving teacher effectiveness PK-3.* Webinar, National Governors Association Center for Best Practices.

Pianta, R. C. (2012, September) *Classroom practices that really make a difference for early learners.* Webinar, Hatch Early Learning Experts.

Pianta, R. C. (2012, September). *Paid early childhood caregivers and educators.* Webinar, Broader Bolder Approach to Education, Economic Policy Institute, Washington, DC.

Pianta, R. C. (2011, November). One size can't fit all—Developing smart policies to evaluate pre-K-3 teacher effectiveness. *Pre-K Now* Webinar.

Pianta, R. C. (2011, April). *Recalibrating professional development for teacher success, Education Week* Webinar.

Pianta, R. C. (2008, June). *Outcomes and accountability in pre-K: Understand the debate*, ECE Teach for America Webinar.

Supervision of Clinical Training

Therapy team leader, Child-Parent Psychotherapy. Center for Clinical Psychology Services, University of Virginia, Curry School of Education, 1991-1993.
Therapy supervisor. Center for Clinical Psychology Services, University of Virginia, Curry School of Education, 1986-1993.
Assessment supervisor. Center for Clinical Psychology Services, University of Virginia, Curry School of Education, 1986-1993.
Therapy team leader, Play Therapy. Center for Clinical Psychology Services, University of Virginia, Curry School of Education, 1986-1991.

SERVICE

Service to the University of Virginia and Curry School of Education

Member, Commonwealth Council on Children's Success, Virginia Department of Education, 2014-present.
Chair, Leadership Council for Organizational Excellence, Office of the Executive Vice President and Chief Operating Officer, University of Virginia, 2013-present.
Member, Dean Search Committee, Frank Batten School of Leadership and Public Policy, University of Virginia, 2013-present.
Participant, Branding Advisory Group, Office of Communications, University of Virginia, 2014-2015.
Member, Five-Year Review Committee for Vice President and Chief Student Affairs Officer, University of Virginia, 2013.
Lead, Communications & Change Management Task Force, Office of the President, University of Virginia, 2012-present.
Charter Member, Board of Governors in the Academic of Education Arts and Sciences. BAM Radio Network, 2012-present.
Member, University Calendar Committee, University of Virginia, 2011-present.
Chair, Review Committee for the reappointment of Greg Roberts, Dean of Admissions, University of Virginia, 2011-2012.
Member, University Budget Model Steering Committee, 2011.
Member, Presidential Inaugural Steering Committee, University of Virginia, 2010-2011.
Chair, Committee on the Inaugural Academic Conference, University of Virginia. 2010-2011.
Expert Panel Member, Child Development & Behavior Branch, Rockville, MD, July 2008.
Member, Provost Search Committee, University of Virginia, Spring 2007.
University of Virginia Representative, The Joint Legislative Audit and Review Commission (JLARC), Virginia Preschool Initiative, Richmond, VA, 2007-present.
Director, Interdisciplinary Education Sciences Pre-Doctoral Training Program, Curry School of Education, 2004-present.
Research Advisory Council, 2005-present; Research Facilitator, 2005-present, Teachers for a New Era, University of Virginia.
Chair, Dean Search Committee, Curry School of Education, University of Virginia, 2006.
Member, Search Committee, Department of Leadership, Foundations, and Policy, Curry School of Education, University of Virginia, 2005.
Member, Search Committee, Department of Leadership, Foundations, and Policy, Curry School of Education, University of Virginia, 2004.
Representative, Organization of Institutional Affiliates, American Educational Research Association, Washington, DC, October 2004-present.
Member, Search Committee, Curry School Foundation Director, Curry School of Education, University of Virginia, 2003.
Member, Search Committee, Grants Administrator, Curry School of Education, University of Virginia, 2003.
Coordinator, Curry Spring Speaker Series on Risk and Prevention, Curry School of Education, University of Virginia, Spring 2003.

Member, Advisory Board, Virginia Center for Educational Policy Studies, Curry School of Education, University of Virginia, 2002-present.
Chair, Strategic Planning, Initiative on Risk and Prevention, Curry School of Education, University of Virginia, 2001-present.
Chair, Search Committee, Curry Programs in Clinical and School Psychology, University of Virginia, 2001-2002.
Member, Search Committee, Early Childhood and Developmental Risk, Curry School of Education, University of Virginia, 2001.
Member, Institutional Review Board for the Behavioral Sciences, University of Virginia, 2000-2004.
Member, Promotions Committee, Curry School of Education, 1999-2002.
Member, Quantitative Methods Search Committee, Curry School of Education, 1999.
Chair, Academic Affairs Committee, Curry School of Education, 1996-1997.
Academic Affairs Committee, Curry School of Education, 1995-1997.
Talbott Chair Search Committee, Curry School of Education, 1994.
Director, Infant and Family Intervention Training Project, Curry School of Education, 1988-1997.

Service to the Profession: Local, National, and International

Member, Finance Committee, Society for Research in Child Development, 2015-
Editor, *AERA Open*, 2014-
Consultant, Bill and Melinda Gates Foundation, Seattle, WA, September 2013.
Invited Participant, Southern Regional Educator Board (SREB) Teacher Preparation Meeting, Atlanta, GA, May 2013.
Consultant, Louisiana State Department of Education, Baton Rouge, LA, April 2013.
Lunch with the Leader, 2013 Biennial Meeting, SRCD, Seattle, WA.
Member, AERA Distinguished Contributions to Research Education Award. 2013-present.
Member, APA Task Force on Applying Psychological Science to the Analysis of Data for Program Improvement, 2012-present.
Member, National Early Education Council, Jumpstart, Boston, MA, 2012-present.
Faculty Consultant, National Conference of State Legislatures, Denver, CO, 2012-present.
Member, Head Start National Research Advisory Board, Washington, DC, 2009-present.
Member, Advisory Board, William T. Grant Foundation, Washington, DC, 2008-present.
External Reviewer, Promotion & Tenure, Harvard Graduate School of Education, Cambridge, MA, April 2012.
External Reviewer, Promotion & Tenure, Northwestern University, School of Education and Social Policy, Evanston, IL, February 2012.
Member, Center for American Progress Early Childhood Education Advisory Committee, Washington, DC, 2011-present.
External Reviewer, Promotion & Tenure, Academy of Finland, Helsinki, Finland, 2011-2012.
Member, Scientific Advisory Board for the Legacy for Children, National Institute for Early Education Research, Rutgers University (NIEER), New Brunswick, NJ, 2009-2018.
Member, Steering Committee, Rothschild Foundation, Jerusalem, Israel, 2009-present.
Member, First School National Advisory Board, Chapel Hill, NC, 2009-present.
Member, Advisory Group, International Reading Association and Eunice Kennedy Shriver National Institute of Child Health and Human Development, 2009-present.
Member, Advisory Committee, Historically Black Colleges and Universities, 2009-present.
Consultant, Technical Work Group, Office of Planning, Research, and Evaluation in the Administration for Children and Families, Washington, DC, October 2009.
Member, Technical Review Panel for Early Childhood Longitudinal Study, Westat, Rockville, MD, 2008-present.
Member, Advisory Board, *Parents* Magazine, 2008-present.
Member, External Review Panel, Steinhardt School of Culture, Education, and Human Development (Dean Mary Brabeck), New York University, New York, NY, March 2008.
Member, Committee on Research and Dissemination, American Association of Colleges for Teacher Education, Washington, DC, 2008-2011.
Member, Advisory Board, Washington Kids Count Project, Seattle, WA, 2008-2010.

Chair, Smart Beginnings Leadership Council, United Way, Charlottesville, VA, 2007-present.
Member, Opportunity to Start Strong, Commonwealth of Virginia, Office of the Governor, Richmond, VA, 2007-2010.
Member, Governor's Working Group on Early Childhood Initiatives, Richmond, VA, 2007-2010.
Consultant, The Family Life Project, University of North Carolina at Chapel Hill, 2007-2010.
Member, Committee on Early Childhood Mathematics, Center for Education, National Research Council, National Academies of Science, Washington, DC., 2007-2008.
Member, Scholars Selection Committee, William T. Grant Foundation, Washington, DC, 2007-2010.
Reviewer, Promotion and Tenure Evaluation, Southern Illinois University School of Medicine, Spring 2007.
Consultant, Observational Measurement of Classroom Quality, Spencer Foundation & W. T. Grant Foundation, Chicago, February 2007.
Consultant, Teaching as a Clinical Practice, Carnegie Foundation, Washington, DC, January 2007.
Member, Federal Advisory Committee, National Children's Study, Rockville, MD, 2007-2008.
Member, Committee on Early Childhood Education, National Research Council National Academies, Washington, DC, 2006-2007.
Advisor, PK-3 Research and Evaluation Forum, Foundation for Child Development, New York, NY, December 2006-2007.
Member, Professional Development Task Force, Start Strong Council, Virginia Department of Education, Richmond, VA, 2006-present.
Consultant, Appalachian Regional Education Laboratory, Washington, DC, April 2006.
Consultant, Department of Human Development, Teachers College, Columbia University, New York, NY, January 2006.
Member, Advisory Board, Integrative Research Activities for Developmental Science (IRADS), Center for Developmental Science, University of North Carolina at Chapel Hill, 2006-2011.
Consultant, Foundation for Child Development, New York, NY, 2005.
Member, Board of Advisors, Early Education Initiative, New America Foundation, Washington, DC, November 2005-2007.
Participant, Research Roundtable, *Child and adolescent development research and teacher education: Evidence-based pedagogy, policy, and practice*, National Institute of Child Health and Human Development and the National Council for the Accreditation of Teacher Education, Washington, DC, 2006.
Consultant, Erikson Institute, Chicago, IL, 2005-2006.
Participant, Ready Schools Planning Meeting, W. K. Kellogg Foundation, Washington, DC, July 2005.
Consultant, Center for Human Growth and Development, University of Michigan, Ann Arbor, MI, August 2005.
Reviewer/Consultant, Child Development Framework Project, PBS Parents, Washington, DC, 2005.
Consultant, *Discipline and the Power of Relationships*, Family Communications, Inc., Pittsburgh, PA, May 2005.
Proposal reviewer, The Spencer Foundation, Chicago, IL, 2005.
Member, The National Early Childhood Accountability Task Force, The Pew Charitable Trusts, Washington, DC, 2005-2007.
Member, Learner-Centered Principles Task Force, American Psychological Association, Washington, DC, 2005-2006.
Member, Advisory Board, National Research Center for Rural Education Support (NRCRES), University of North Carolina, 2005-2010.
Reviewer, Tenure and Promotion Committee, Department of Human Development and Applied Psychology, Ontario Institute for Studies in Education, University of Toronto, Ontario, Canada, 2005.
Member, IES Peer Review Panel, Predoctoral Interdisciplinary Research Training Program in the Education Sciences, Institute of Education Sciences, U.S. Department of Education, Washington, DC, 2005.
National advisor, Transforming Transitions to Kindergarten, Research & Training Center on Family Support and Children's Mental Health, Portland State University, Portland, OR, 2004-2005.
Reviewer, Tenure and Promotion Committee, College of Education, Wayne State University, November 2004.
Reviewer, External Review Team, Department of Human Development, University of Maryland, November 2004.

Consultant, *Design Options for Studying Head Start Quality Enhancements*, Administration for Children and Families, U.S. Department of Health and Human Services, July 2004-January 2005.

Representative, APA Division 7, Teachers' Needs Analysis Project, Washington, DC, May 2004.

Member, Scientific Review Panel, Latino Children, Preschooling, and Early Development Project, PACE, University of California—Berkeley, Berkeley, CA, December 2003-present.

Representative, Educational Leadership Conference, Division 7, American Psychological Association, Washington, DC, September 2003.

Advisor, Task Force on Evidence-Based Interventions in School Psychology, School Psychology Program, University of Wisconsin-Madison, Madison, WI, June 2003.

Member, Ready Schools Advisory Panel, HIGH/SCOPE Educational Research Foundation, Ypsilanti, MI, 2003.

Consultant, National Governors' Association Task Force on School Readiness, Washington, DC, 2003.

Panel Chair, Educational Issues, Society for Research in Child Development, Atlanta, GA, April 2005.

Member, Early Childhood Education Advisory Committee, The Norfolk Foundation, Norfolk, VA, 2003.

Reviewer, Committee to Select Distinguished Professors, University of North Carolina at Chapel Hill, March 2003.

Member, Head Start National Reporting System Technical Working Group, Department of Health and Human Services, Washington, DC, 2003-2005.

Member, Commission on NAEYC's Technical Resource Team, Washington, DC, 2003-2004.

Mentor/Consultant, AERA-Spencer Pre-dissertation Fellows Program, American Educational Research Association, Washington, DC, 2003-present.

Contributor/Columnist, *Head Start Magazine*, July 2002–2003.

Reviewer, The Israel Science Foundation, Jerusalem, Israel, 2002.

Reader/Reviewer, Psychology Undergraduate Program, School of Psychology, Murdoch University, Murdoch, Western Australia, 2002.

Contributor/Consultant, Pathways Mapping Initiative, School Readiness Knowledge Base, Project on Effective Interventions, Harvard University, 2001-2002.

Consultant/Participant, *Promoting Full-Day Kindergarten,* Foundation for Child Development, New York City, NY, May 2002.

Consultant, American Institutes for Research, National Center for Education Statistics, Washington, DC, January-June 2002.

Reviewer/Member, Division 16 Convention Committee of the American Psychological Association, December 2001–January 2002.

Member, Advisory Council, Full-Day Kindergarten Study, Education Commission of the States, Denver, CO, 2001.

Consultant, Westat, Building Futures: Head Start Impact Study, U.S. Department of Health and Human Services, Rockville, MD, 2001-present.

Consultant, Duke Center for Social Policy, Duke University, Durham, NC, February 2001.

Consultant, Classroom Observational Strategies, U.S. Department of Education, Title 1 Research Group, Washington, DC, April 2001.

Reviewer, Grant Proposal, National Science Foundation, Washington, DC, 2001.

Member, National Advisory Board, National Center for Family and Community Involvement in Schools, Southwest Educational Development Laboratory, Dallas, TX, 2000-2005.

Consultant, Ewing Marion Kauffman Foundation, Project on School Readiness, Kansas City, MO, December 1999.

Consultant, Child Mental Health Funders and Agencies Work Group, November 1999.

Member, Task Force on the Impact of Psychology on Preschool/Early Childhood Education, Board of Educational Affairs, American Psychological Association,1999-2000.

Consultant, Hartford Foundation for Public Giving, Brighter Futures Initiative: Transition to School Project, 1998-2000.

Member, Commission on Children and Families, Charlottesville/Albemarle, 1998-1999.

Expert Panel on Pre-Kindergarten Standards for the State of California, Health and Education Communication Consultants, 1998-1999.

Consultant to Early Childhood Longitudinal Study—Birth Cohort, WESTAT and National Center for Educational Statistics, 1998-2000.

Promotions Review:
    University of Minnesota, 2013.
    Harvard Graduate School of Education, 2012.
    University of Haifa, Israel, 2004.
    State University of New York at Buffalo, 2003.
    The University of California at Los Angeles, 2003.
    The University of Chicago, 2003.
    The University of Delaware, 2003.
    George Mason University, 2003.
    Stanford University, 2003.
    Indiana University, School of Education, 2001-02.
    The University of Texas at Dallas, School of Human Development, 2000.
    University of Pittsburgh, Department of Psychology in Education, 2000.
    Georgia State University, College of Education, 2000.
    Harvard University, Graduate School of Education, 1999.
    University of California Los Angeles, Graduate School of Education, 1998, University of Minnesota
        School of Education, 1998.
    University of Washington School of Nursing, 1998.
    Wayne State University Department of Psychology, 1997.
    Harvard University Graduate School of Education, 1997.
    Cornell University Department of Human Development and Ecology, 1996.
    Tufts University Department of Child Study, 1994.
Advisory Board, Costs, Quality, and Child Outcomes in Child Care Centers. Four-site study of child care,
    Yale University, University of North Carolina, University of Colorado Denver, University of California
    Los Angeles, 1995-1996.
Consultant, Service Use, Need, and Outcomes in Child and Adolescent Psychopathology (UNOCAP*).*
    MacArthur Foundation Consultant to National Institute of Mental Health, 1995.
Consultant, Child and family adaptation to chronic illness. NIH-funded research project, Joan Austin,
    Ph.D., Principal Investigator, 1994.
Consultant, Epilepsy Foundation of America, Issues and answers: A guide for parents of children with
    seizures, Birth to Age Six and Age Six to Twelve, 1993.
Consultant, National Institute for Disability and Rehabilitation Research, Research Priorities in Epilepsy,
    June 1991.
Consultant, Adult Attachment and Adolescent Development Research Project, Pennsylvania Hospital,
    Diana Rosenstein, P.I., 1997
Examiner, Doctoral Thesis, The University of New England, Armidale, NSW 2351, Australia, 1999.
Grant review: National Institute of Mental Health B-START Program, 1998.
Grant review: National Institute of Child Health and Human Development, Small Grants Special Emphasis
    Panel, 1997.
Grant review: The Spencer Foundation, 1995.
Grant review: The National Science Foundation, 1995, 1997.
Grant review: National Institute of Child Health and Human Development, Special Competition on the
    Effects of After-School Care on the Development of Children, December 1992.
Grant review: Field-initiated research competition. U.S. Department of Education, Office of Special
    Education, August 1991.
Grant review: Infant intervention training project competition, U.S. Department of Education, Office of
    Special Education, Division of Personnel Preparation, October 1989.
Society for Research in Child Development Panel Reviews:
    Children At Risk (3+ Years), 2001, Biennial Meeting
    Parenting, 1999, Biennial Meeting
    Family and Kinship Relations, 1997, Biennial Meeting
    Emotional Development, 1995,
    Infancy: Social and Emotional Process, 1993, Biennial Meeting
    Children At Risk, 1991, Biennial Meeting
    Developmental Psychopathology, 1987, Biennial Meeting, International Conference on Infant Studies

Advisory Board Member, Center for Early Education and Development, University of Minnesota, Institute of Child Development, 1985-1986.
Advisory Board, Bright Stars Preschool Program, Albemarle County Public Schools, 1996-1997.
Consultant, Charlottesville City Schools, Program for Four-Year-Olds, 1995-2000.
Chair, Appalachian Education Laboratory, Virginia Association of Colleges of Teacher Education Study Group on Students At-Risk, 1988-1990.
Virginia Interagency Coordinating Council Task Force on Personnel Preparation, Virginia Department of Mental Health, Mental Retardation and Substance Abuse, 1989-1990.
Kindergarten Readiness Assessment Review Panel, Virginia Department of Education, 1989-1990.
Consultant, Creating Nurturing Environments for At-Risk Students, Commonwealth Center for Research on Teaching, University of Virginia and James Madison University. Minigrant of $5000 awarded to Donovan Steiner, Principal Investigator, Eastern Mennonite College, 1989-1990.

Service to the Profession: Editorial
Editor, *Journal of School Psychology*, 1999-2007.
Editorial Advisory Board, *Journal of Family Psychology*, 2003-2004.
Editorial Advisory Board, *School Psychology Review*, 1995-1998, 2000.
Advisory Editor, *Journal of School Psychology*, 1992-1998.
Editorial Board, *Exceptional Children*, 1994-1995.
Associate Editor, *Early Education and Development*, 1988-1999.
Field Reviewer:
    American Educational Research Journal
    American Journal on Mental Retardation
    Behavior Disorders
    Child Development
    Development and Psychopathology
    Developmental Psychology
    Exceptional Children
    Exceptionality
    Infant and Child Development
    Infants and Young Children
    Journal of Abnormal Child Psychology
    Journal of Consulting and Clinical Psychology
    Journal of Special Education
    Merrill-Palmer Quarterly
    Pediatrics
    Personality and Social Psychology Bulletin
    Psychological Bulletin
    Remedial and Special Education
    School Psychology Review

Selected Media Interviews
Pianta, R. C. (2013, February). "Universal preschool? Not so fast." *Mother Jones.*
    http://www.motherjones.com/mojo/2013/02/obama-universal-preschool-robert-pianta-highscope-oklahoma
Pianta, R. C. (2013, February). "White House's proposed expansion of pre-school programs." The Diane Rehm Show, NPR, Washington, DC.
Pianta, R. C. (2012, September). "Sunday Morning Wake-Up Call," WNRN (Rick Moore), Charlottesville, VA.
Pianta, R. C. (2012, September). "Teachers' expectations can influence how students perform." NPR *Morning Edition* (Alix Spiegel). Retrieved from:
    www.npr.org/blogs/health/2012/09/17/161159263/teachers-expectations-can-influence-how-students-perform/
Pianta, R. C. (2012, January). "Body, Mind and Child." BAM Radio Network (Rae Pica).
Pianta, R. C. (2011, December). "Common Core Poses Challenges for Preschools." *Education Week* (Jaclyn Aubrzycki). Retrieved from www.edweek.org/ew/articles/2011/12/07/12prek_ep.h31.html?/
Pianta, R. C. (2011, November). "Teacher Development at Center of New Center for American Progress

Studies." *Huffington Post.*
Pianta, R. C. (2011, January). Expert Interview with Andrea Mitchell, NBC Universal.

Print media

APA Monitor	*Parenting*
The Boston Globe	*Parents Magazine*
Business Week	*The Plain Dealer*
The Calgary Herald	*Redbook*
The Cavalier Daily	*Richmond Times-Dispatch*
Charlottesville Daily Progress	*The Star-Ledger*
Christian Science Monitor	*USA Today*
The Colorado Gazette	*U.S. News and World Report*
Education Week	*University of Virginia News*
International Herald Tribune	*Virginia Pilot*
New York Times	*Wall Street Journal*
The Orlando Sentinel	*Washington Post*

Broadcast media

NBC-TV	MSNBC-TV
ABC-TV	WVIR-TV
CNN-TV	University of Virginia TV News
NPR, "Insight" with Tom Graham	
PBS, WETA, "Reading Rockets"	

PBS, Invited guest, "Education News Parents Can Use," Early Childhood Education Good Start, Grow Smart," with Doris McMillon

Professional Association Memberships

American Psychological Association, Regular Member, 1987–present.
National Association of School Psychologists Association, Member, 1986–present.
Society for Research on Educational Effectiveness, Member, 2006-present.
Society for Research in Child Development, Member, 1986-present.
Society for Prevention Research, Member, 2000-2002.
Society for the Study of School Psychology, 1996-present.
Council for Exceptional Children, Member, 1991-1999.

Bridget K. Hamre

Research Scientist

Curry School of Education
University of Virginia

Education

Ph.D., Clinical and School Psychology, University of Virginia, Charlottesville, VA, 2002
Dissertation: Depression in nonfamilial caregivers of young children: Prevalence and associations with caregiver behavior. (Chairperson: Robert C. Pianta)

M.Ed., Psychology, University of Virginia, Charlottesville, VA, 1998
Masters Thesis: Early teacher-children relationships and the trajectory of children's academic and behavioral outcomes through eighth-grade.

B.A., Psychology, University of California, Berkeley, CA, 1995

Professional Positions

Associate Director, Center for Advanced Study of Teaching and Learning, University of Virginia, Charlottesville, VA (June 2007-present)

Affiliated Faculty, Applied Developmental Psychology and Education Psychology, Curry School of Education, University of Virginia, Charlottesville, VA (September 2009-present)

Affiliated Faculty, Program in Clinical and School Psychology, Curry School of Education, University of Virginia, Charlottesville, VA (September 2006-present)

Senior Scientist, Center for Advanced Study of Teaching and Learning, University of Virginia, Charlottesville, VA (September 2006-present)

Research Associate/ IES/APA Postdoctoral Education Research Training Fellow, Curry School of Education, University of Virginia, Charlottesville, VA. (August 2004-August 2006)

MyTeachingPartner Consultant, Curry School of Education, University of Virginia, Charlottesville, VA. (August 2004-June 2006)

Post-doctoral Researcher, Policy Analysis for California Education (PACE), University of California, Berkley, CA. (July 2002 – August 2004)

Psychology Intern, Children's Health Council and Lucile Packard Children's Hospital at Stanford, Palo Alto, CA. (July 2001 – June 2002)

Senior Staff Therapist and Assessment Supervisor, Center for Clinical Psychology Services, University of Virginia, Charlottesville, VA. (July 2000 – June 2001)

Child Psychologist Trainee, DeJarnette Children's Psychiatric Hospital, Staunton, VA. (September 1999 – June 2000)

Staff Therapist/Trainee, Center for Clinical Psychology Services, University of Virginia, Charlottesville, VA. (July 1998 – June 1999)

School Psychology Practicum Student, Head Start Transition to School Project, University of Virginia, Charlottesville, VA. (January 1998 – September 1998)

Graduate Research Associate, National Center for Early Development and Learning, University of Virginia, Charlottesville, VA. (August 1997 – June 2001)

Assistant Teacher, East Bay Sierra School, El Cerrito, CA. (August 1995- June 1997)

Research Assistant, Institute of Human Development, University of California, Berkeley, CA. (January 1994 – January 1995)

Research Interests

Integrating psychological and educational theory and methodology. Identifying classroom-level processes that facilitate children's academic, social, and emotional development. Developing and evaluating school-based prevention and intervention programs aimed at improving the quality of interactions between teachers and students.

Publications

Refereed Journal Articles

LoCasale-Crouch, J., Kraft-Sayre, M., Pianta, R. C., Hamre, B. K., Downer, J. T., Leach, A., . . . Scott-Little, C. (2011). Implementing an early childhood professional development course across 10 sites and 15 sections: Lessons learned. *NHSA Dialog: Research-to-Practice Journal for the Early Childhood Field, 14*(4), 275-292.

Hamre, B. K., Pianta, R. C., Burchinal, M. Field, S. Locasale-Crouch, J.L., Downer, J. T., et al., (in press). A Course on Effective Teacher-Child Interactions: Effects on Teacher Beliefs, Knowledge, and Observed Practice. *American Education Research Journal.*

Hamre, B. K., Pianta, R. C., Mashburn, A. J., & Downer, J. T. (in press). Promoting young children's social competence through the preschool PATHS curriculum and MyTeachingPartner professional development resources. *Early Education and Development.*

Cappella, E. Jackson, D. Wagner, C. Hamre, B. & Soule, C. (in press). Bridging mental health and education in urban elementary schools: Participatory research to inform intervention development and implementation. *School Psychology Review.*

Downer, J., T., Pianta, R. C., Fan, X., Hamre, B. K., Mashburn, A., & Justice, L. (2011). Effects of web-mediated teacher professional development on the language and literacy skills of children enrolled in prekindergarten programs. *NHSA Dialog: Research-to-Practice Journal for the Early Childhood Field, 14*(4), 189-212.

Scott-Little, C., La Paro, K. M., Thomason, A. C., Pianta, R. C., Hamre, B., Downer, J., . . . Howes, C. (2011). Implementation of a course focused on language and literacy within Teacher–Child interactions: Instructor and student perspectives across three institutions of higher education. *Journal of Early Childhood Teacher Education, 32*(3), 200-224.

Mintz, T. M., Hamre, B. K., Hatfield, B. E. (in press). The role of effortful control in mediating the association between maternal sensitivity and children's social and relational competence and problems in first grade. *Early Education and Development.*

Curby, T. W., Stuhlman, M., Grimm, K., Mashburn, A., Chomat-Mooney, L., Downer, J., . . . Pianta, R. C. (2011). Within-day variability in the quality of classroom interactions during third and fifth grade. *Elementary School Journal, 112*(1), 16-37.

Bridges, M., Fuller, B., Huang, D., & Hamre, B. (in press). Strengthening the early childhood workforce: How wage incentives may boost training and job stability. *Early Education and Development.*

Mashburn, A. J., Downer, J. T., Hamre, B. K., Justice, L.M., &Pianta, R. C. (2010). Consultation for Teachers and Children's Language and Literacy Development during Pre-Kindergarten. *Applied Developmental Science, 14,* 179-196.

Rimm-Kaufman, S. E. & Hamre, B. K. (2010). The role of psychological and developmental science in efforts to improve teacher quality. *Teacher College Record, 112(12*), 2988-3023.

Downer, J. T., Sabol, T., & Hamre, B. K. (2010). Teacher-child interactions in the classroom: toward a theory of within- and cross-domain links to children's developmental outcomes. *Early Education and Development, 21,* 699-723.

Hamre, B. K., Justice, L., Pianta, R. C., Kilday, C. Sweeny, B., Downer, J, et al., (2010). Implementation fidelity of the MyTeachingPartner literacy and language activities: Associations with preschoolers' language and literacy growth. *Early Childhood Research Quarterly, 25,* 329-347.

Jerome, E., Hamre, B. K., & Pianta, R. C. (2009). Teacher-child relationships from kindergarten to sixth grade: early childhood predictors of teacher-perceived conflict and closeness. *Social Development, 18,* 915-945.

LaParo, K.M., Hamre, B. K., Locasale-Crouch, J., Pianta, R. C., et al., (2009). Quality in kindergarten classrooms: observational evidence for the need to increase children's learning opportunities in early education classrooms. *Early Education and Development, 20,* 657-692.

Downer, J., Locasale-Crouch, J., Hamre, B., & Pianta, R. (2009). Teacher characteristics associated with responsiveness and exposure to consultation and on-line professional development resources. *Early Education & Development, 20(3),* 431-455.

Pianta, R. C., & Hamre, B. K. (2009). Classroom processes and positive youth development: conceptualizing, measuring, and improving the capacity of interactions between teachers and students. *New Directions for Youth Development, 121,* 33-46.

Pianta, R. C., & Hamre, B. K. (2009). Conceptualization, measurement, and improvement of classroom processes: standardized observation can leverage capacity. *Educational Researcher, 38,* 109-119.

Pianta, R.C., Mashburn, A. J., Downer, J. T., Hamre, B. K. & Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. *Early Childhood Research Quarterly, 23,* 431-451.

Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., et al. (2008). Measures of classroom quality in pre-kindergarten and children's development of academic, language and social skills. C*hild Development, 79(3),* 732-749.

Justice, L., Mashburn, A. J., Hamre, B. K., & Pianta, R. C. (2008). Quality of language and literacy instruction in preschool classrooms serving at-risk pupils. *Early Childhood Research Quarterly, 23,* 51-68.

Hamre, B. K., Pianta, R. C., Downer, J. T., Mashburn, A. J. (2008). Teachers' perceptions of conflict with young students: looking beyond problem behaviors. *Social Development, 17, 115-136.*

Mashburn, A. J., Hamre, B. K., Downer, J. T., Pianta, R. C. (2007). Teacher and classroom characteristics associated with teachers' ratings of pre-kindergartners' relationships and behaviors. *Journal of Psychoeducational Assessment*, 24, 367-380.

Hamre, B. K., & Pianta, R. C. (2005). Can instructional and emotional support in the first grade classroom make a difference for children at risk of school failure? *Child Development, 76*, 949-967.

Hamre, B. K., & Pianta, R. C. (2004). Nonfamilial caregiver self-reported depression: prevalence and associations with caregiver behavior in child care settings. *Early Childhood Research Quarterly*, *19*, 297-318.

Konold, T., Hamre, B. K., Pianta, R. C. (2003) Measuring problem behaviors in young children. *Behavioral Disorders, 28,* 111-123*.*

Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth-grade. *Child Development, 72,* 625-638.

Book Chapters

Cash, A. H. & Hamre, B. K. (in press). Evaluating and improving student-teacher interactions. In, J. Hattie & E. Anderman (Eds.), *International Handbook of Student Achievement*. Routledge Publishers.

Hamre, B.K., Downer, J. T., Jamil, F., & Pianta, R. C. (in press). Enhancing teachers' intentional use of effective interactions with children: Designing and testing professional development interventions. In, R. C. Pianta (Ed). *Handbook of Early Education.*

Pianta, R. C., Hamre, B. K., & Allen, J. (in press). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions. In S. Christenson, (Ed.) *Handbook of Research on Student Engagement.*

Pianta, R. C., Hamre, B. K., & Downer, J. T. (2011) Aligning measures of quality with professional development goals and goals for children's development. In M. Zaslow, I. Martinez-Beck, K. Tout, & T. Halle (Eds.) *Quality and Measurement in Early Childhood Education* (pp. 297-315)*.* Baltimore: Brookes.

Hamre, B. K., & Pianta, R. C. (2010). Classroom environments and developmental processes: conceptualization & measurement. In J. Meece & J. Eccles (Eds.). *Handbook of Research on Schools, Schooling, and Human Development* (pp 25-41). New York: Routledge.

Hamre, B. K., Pianta, R. C., Choomat-Mooney, L. (2009). Conducting Classroom Observations in School Based Research. In L. Dinella (Ed). *Conducting Psychology Research in School-Based Settings: A Practical Guide for Researchers Conducting High Quality Science within School Environments* (pp 79-106). Washington DC: APA Press

Hamre, B. K., Downer, J. T., Kilday, C. R., & McGuire, P. (2008). *Effective teaching practices for early childhood mathematics*. White paper prepared for the National Research Council.

Hamre, B.K., Locasale Crouch, J., & Pianta, R. C. (2008). Formative assessment of classrooms: using classroom observations to improve implementation quality. In L. Justice & C. Vukelich (Eds). *Achieving Excellence in Preschool Literacy Instruction* (pp. 102-119)*.* New York: Guilford.

Pianta, R., Stuhlman, M., & Hamre, B. (2007). How adult-child relationships foster resilience in kindergarten and elementary school. In G. Opp & M. Fingerle (Eds.), *Was Kinder stärkt-- Erziehung zwischen Risiko und Resilienz (2nd Ed.) (pp. 192-211)* Munich, Germany: Ernst Reinhardt, GmbH & Co KG.

Hamre, B. K. & Pianta, R. C. (2007). Learning opportunities in preschool and early elementary classrooms. In R.C. Pianta, M. J. Cox, & K Snow (Eds.), *School Readiness and the Transition to School* (pp. 49-84). Baltimore: Paul H. Brookes.

Hamre, B. K. & Pianta, R. C. (2006). Student-teacher relationships as a source of support and risk in schools. In G. G. Bear & K. M. Minke (Eds.) *Children's Needs III: Development, Prevention, and Intervention* (pp. 59-71)*.* Bethesda, Maryland. National Association of School Psychologists.

Pianta, R.C., Hamre, B. K., & Stuhlman, M. (2003). Relationships between teachers and children. In W. Reynolds & G. Miller (Eds.), *Comprehensive Handbook of Psychology (Vol. 7) Educational Psychology* (pp. 199-234). New York: John Wiley & Sons.

Pianta, R.C., Stuhlman, M., & Hamre, B. K., (2002). How schools can do better: Fostering stronger connections between teachers and students. In J. E. Rhodes (Ed.), *New Directions for Youth Development: A Critical View of Youth Mentoring* (pp. 91–107). San Francisco: Jossey-Bass.

Other Publications

Hamre, B. K., & Maxwell, K. L. (2011). Best Practices for Conducting Program Observations as Part of Quality Rating and Improvement Systems, Research-to-Policy, Research-to-Practice Brief OPRE 2011-11b. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Hamre, B. K., Goffin, S. , & Kraft-Sayre. (2009) CLASS Implementation Guide. Available on Teachstone Web Site: http://www.classobservation.com/wp-content/uploads/2010/06/ CLASSImplementationGuide.pdf

Howes, C., Pianta, R., Bryant, D., Hamre, B., Downer, J., & Soliday-Hong, S. (2008). *Ensuring effective teaching in early childhood education through linked Professional Development Systems, Quality Rating Systems and State Competencies: The role of research in an evidence-driven system*. Retrieved October 30, 2008, from www.ncrece.org/wordpress/products/publications/.

Hamre, B. K., & Pianta, R.C. (2005). Closing the Achievement Gap One Teacher at a Time. *Teachers College Record*, Date Published: October 28, 2005 http://www.tcrecord.org ID Number: 12224, Date Accessed: 11/1/2005 2:15:44 PM.

Hamre, B. (2003). Enhancing relationships with teachers. *School Psychology in Virginia: The Newsletter of the Virginia Academy of School Psychologists*, Fall.

Hamre, B.K., Grove, R. and Louie, J. (2003). *Progress Report: Matching Funds for Retention Incentives for Early Child and Education Providers*. Available on Policy Analysis for California Education, U.C. Berkeley Web site: http://pace.berkeley.edu/ pace_eval_matching_funds.html.

Stuhlman, M., Hamre, B. K., & Pianta, R.C. (2002). Building supportive relationships with adolescents. *Middle Matters*, 6, 1-2.

Pianta, R.C., & Hamre, B. K. (2001). *Students, Teachers, and Relationship Support [STARS]: User's Guide*. Lutz, FL: Psychological Assessment Resources, Inc.

Invited Presentations

Hamre, B. K. (2010, November). *Effective Teacher-Child Interactions: Supporting Teachers.* Presentation for Center for Early Education and Development. Minneapolis, Minnesota.

Hamre, B. K. (2010, September). *Making the most of Everyday Interactions with Children*. Presentation for the Ounce of Prevention Funds Annual Professional Development meeting for Teachers. Chicago, Illinois.

Hamre, B. K. (2010, June). Mindfulness in Education: the Role of Everyday Interactions between Teachers and Children. Presentation for the Mind-Life Institute's Summer Institute. Garrison, New York.

Hamre, B. K. (2010, April). *Effective Teacher-Child Interactions.* Presentation for Education Northwest – Montana Early Childhood Bridge Event. Missoula, Montana.

Hamre, B.K. (2009, November). *Effective Teacher-Child Interactions: Intersections between Science and Policy.* Presentation for Steinhardt Education Policy Breakfast Series, sponsored by the Steinhardt School of Education, New York University. New York City, New York.

Hamre, B.K. (2009, October). *Using Classroom Observation to Gauge Teacher Effectiveness: Evidenced-Based Decision Making.* Presentation for the Measuring Teacher Effectiveness: Implications for California's Race to the Top Workshop, sponsored by WestEd and REL-West. Sacramento, California.

Hamre, B.K. (2009, September). *Effective Teacher-Student Interactions: Measuring and Improving Classroom Practice.* Presentation for Connecting Ready Kids to Ready Schools, sponsored by the Silicon Valley Community Foundation and the Silicon Valley Partnership for School Readiness. Mountain View, California.

Hamre, B.K. (2009, September). *Effective Teacher-Student Interactions: An Overview of the Classroom Assessment Scoring System (CLASS).* Presentation for the Virginia Department of Education. Richmond, VA.

Hamre, B. K. (2009, April). *Using Classroom Observation to Gauge Teacher Effectiveness
.* Presentation for the National Comprehensive Center for Teacher Quality's Evaluating Teacher Effectiveness Workshop. Denver, Colorado.

Hamre, B. K. (2008, December). *Supporting Effective Teacher-Student Interactions in Kindergarten.* Presentation to New Jersey Department of Education Kindergarten Conference. Trenton, New Jersey.

Hamre, B. K. (2008, June). *Prompting Effective Interactions with Your Students: The CLASS Approach.* Presentation to St. Paul Public Schools early childhood teachers. St. Paul, Minnesota.

Hamre, B. K. (2008, May). *Innovative Approaches for Early Childhood Program Evaluation and Professional Development Using CLASS (Classroom Assessment Scoring System).* Keynote speaker at UNI Early Childhood Spring 2008 Summit: Assessing Preschool Quality, Cedar Falls, Iowa.

Hamre, B. K. (2008, September). *Teacher-Child Interactions as the Foundation of Children's School Success.* 6th Annual Program in Education, Afterschool, and Resiliency (PEAR) Conference, The Whole Child, The Whole Day. Boston, Massachusetts.

Hamre, B. K. (2007, October). *Bridging Two Cultures: Improving Instruction of Young Children from Pre-kindergarten to Grade 3- Overview of the CLASS.* Presentation sponsored by the Foundation for Child Development for the Grantmakers in Education Conference, Tamaya Resort, New Mexico.

Hamre, B. K., (2007, July). *Opportunities to Learn in America's Elementary Schools.* Presentation sponsored by the Darden Business Schools Partnership for Leaders in Education. Charlottesville, VA.

Hamre, B., & Downer, J. (2007, July). *Preschool and beyond: Making a smooth transition.* Presentation sponsored by the Arkansas Department of Education at the School for the 21st Century National Conference, Little Rock, AR.

Hamre, B. K. (2007, July). *Effective Classroom Teaching: Evidence-Based Observations and Improvements.* Executive Leadership Program, University of Virginia, Charlottesville, VA.

Hamre, B. K. (2006, November). *Teacher-Child Interactions as the Cornerstone of Early Childhood Education.* Observing and Assessing the Preschool Learner, Teachers College, Columbia University New York.

Hamre, B. K. (2005, July). *Transition Planning and Ready Schools.* Keynote speaker at Indiana Department of Education Transition Conference. Indianapolis, Indiana.

Presentations

Hamre, B.K., et al. (2011, March). Implementation fidelity and teachers' engagement in a course on effective teacher-child interactions: Effects on teacher beliefs, knowledge and practice. Paper presented at the Annual Meeting of the Society for Research on Educational Effectiveness, Washington, DC.

Hamre, B. K., Hatfield, B., Downer, J., Williford, A., & Jamil, F. (2011, March). *Emotional supports in the preschool classroom and early academic performance: Examining potential mediators*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Montreal, Canada.

Hamre, B. K., et al. (2010, June). *Enhancing early childhood teacher knowledge about effective teacher–child interactions: findings from the National Center for Research in Early Childhood Education (NCRECE).* Paper presented at the Biennial Meeting of the Head Start Research Conference. Washington, D.C.

Shernoff, E.S., Jakobsons, L., Frazier, S.L., Maríñez-Lora, A., Atkins, M.S., Hamre, B., Kolacz, J., Parker-Katz, M. & Smylie, M. (2010, June). *Teachers Supporting Teachers in Urban Schools: An Initial Examination of Fidelity and Consumer Satisfaction.* Poster presented at the Annual IES Research Conference, National Harbor, MD.

Hamre, B. K., Pianta, R.C., Burchinal, M., & Downer, J. T. (2010, March). *A course on supporting early language and literacy development through effective teacher-child interactions: Effects on teacher beliefs, knowledge and practice.* Paper presented at the Annual Meeting of the Society for Research on Educational Effectiveness, Washington, DC.

Mashburn, A., Downer, J., Hamre, B., & Pianta, R. (2009, April). *Effects of a web-based teacher professional development program on children's development of social skills during pre-k.* Poster symposium presentation at the 2009 Society for Research in Child Development Biennial Conference. Denver, CO.

Hamre, B. K., Hadden, S., & Pianta, R. C. (2009, April). *Understanding changes in preschool teachers' practice during MyTeachingPartner consultation: a mixed methods study.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Denver, CO.

Hamre, B.K. (2008, November). *National Center for Research on Early Childhood Education (NCRECE): Early Findings from a course in effective interactions.* Paper presented at the annual meeting of the National Association for the Education of Young Children. Dallas, Tx.

Hamre, B. K., Downer, J. T., LoCasale-Crouch, J., & Pianta, R. C., (2008, March). M*yteachingpartner: prediction of variation in teacher participation and associations with observed teaching quality.* Paper presented at the annual meeting of the American Educational Research Association. New York, NY.

Downer, J. T., Chomat-Mooney, L., Pianta, R.C., Grimm, K.J., Mashburn, A. J., Curby. T. W., Hamre, B.K. (2008, March) *Concurrent and predictive validity of classroom observations and other setting-level measures.* Paper presented at the annual meeting of the American Educational Research Association. New York, NY.

Rimm-Kaufman, S. R., & Hamre, B. K. (2008, March) *Improving teacher quality: what promising insights can be learned from developmental and psychological science?* Paper presented at the annual meeting of the American Educational Research Association. New York, NY.

Pianta, R. C., Hamre, B. K., Mashburn, A. J., & Downer, J. T. (2008, March) *The science of observing child-teacher interactions in pk-3rd grade classrooms* Paper presented at the annual meeting of the American Educational Research Association. New York, NY.

Downer, J., Hamre, B.K., Pianta, R.C., & Hadden, S. (2007, March). *Predicting the quality of teacher-child interactions in pre-kindergarten classrooms: Patterns across activity settings.* Poster presented at the Biennial Meeting of the Society for Research in Child Development, Boston, MA.

Hamre, B., Pianta, R., Mashburn, A., & Downer, J. (2007, March). *Growth models of classroom quality over the course of the year in preschool programs.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Boston, MA.

Mashburn, A., Hamre, B., Pianta, R., & Downer, J. (2007, March). *Building a science of classrooms: Three dimensions of child-teacher interactions in PK-3rd grade classrooms.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Boston, MA.

Mashburn, A., Pianta, R., Downer, J., & Hamre, B. (2007, March). *Effects of a web-based intervention to improve teacher quality*. Poster presented at the Biennial Meeting of the Society for Research in Child Development, Boston, MA.

Pianta, R., Mashburn, A., Hamre, B., Downer, J., & Justice, L. (2007, March). *Using web-based feedback to improve teacher-child interactions in pre-kindergarten classrooms*. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Boston, MA.

Hamre, B. K., Downer, J. T., Pianta, R. C., & Mashburn, A. J. (2006, June). *Social Resources in the Classroom and Young Children's Academic & Social Development.* A paper presented at the annual meeting of the Society for Prevention Research. San Antonio, TX.

Hamre, B. K., Pianta, R. C., & Downer, J. T. (2006, April). *Development of Student-Teacher Relationships in Preschool.* A poster presented at the annual meeting of the American Educational Research Association. San Francisco, CA.

Hamre, B. K., Pianta, R. C., & Justice, L. (2006, April). *MyTeachingPartner: A Web-based Approach to Professional Development.* A paper presented at the annual meeting of the American Educational Research Association. San Francisco, CA.

Hamre, B. K. (2005, July). *Transitions to School: Policy, Practices, and Research.* An invited presentation to the Indiana Ready Schools Initiative. Brown County, Indiana.

Hamre, B. K. (2005, June). *Large scale observations of early education settings*. A paper presented at the annual meeting of the Society for the Scientific Study of Reading. Toronto, Canada.

Hamre, B. K. (2005, May). *Daily interactions in the classroom as a prevention tool.* A paper presented at the annual meeting of the Society for Prevention Research. Washington, DC.

Hamre, B. K. (2005, April). *Multi-level modeling of the student-teacher relationship*. A paper presented at the biennial meeting of the Society for Research in Child Development. Atlanta, Georgia.

Hamre, B. K. (2001, April). *Predictors of Mother-Diagnosed Disruptive Behavior Disorders At 36-Months: Are There Multiple Pathways to Diagnosis?* A poster presented at the biennial meeting of the Society for Research in Child Development. Albuquerque, NM.

Hamre, B. K., LaParo, K., & Pianta, R. C. (2000, June). *Development of a Measure of Observed Quality in Early Elementary Classrooms*. Poster session presented at the NAEYC 2000 National Institute for Early Childhood Professional Development Spotlight Forum, San Francisco, CA.

Hamre, B. K. (1999, June). *Kindergarten Quality: The Role of Teacher-Child Relationships.* A poster presented at the Early Childhood Institute Project Directors' Meeting. Washington, DC.

Hamre, B. K. (1999, April) *Predicting Academic and Disciplinary Outcomes from Early Teacher-Child Relationships.* A poster presented at the biennial meeting of the Society for Research in Child Development. Albuquerque, NM.

La Paro, K. & Hamre, B. K. (1998, July) *The Transition to School: Building Connections.* An invited presentation at the Best Practices for High-Risk Kids Conference, Curry School of Education, Charlottesville, VA.

Grants

Hamre, B. K. (2011). Measures of Effective Teaching, CLASS Observation Component- Supplement for additional Scoring. Bill & Melinda Gates Foundation. $50,000.

Pianta R. C. & Hamre, B. K. (2010-2015). *Center for Quality Teaching and Learning.* Office of Head Start. $ 9,455,239.

Hamre, B. K. (2010-2013). *Online Course to Improve the Effectiveness of Teachers' Interactions with Children.* Institute for Education Sciences. $ 1,469,169.

Pianta , R. C. & Hamre, B. K. (2009-2011). Measures of Effective Teaching, CLASS Observation Component. Bill & Melinda Gates Foundation. $281,489

Hamre, B. K. (2008-2011). *Validation of CLASS-Secondary.* WT Grant and Spencer Foundations (PI Drew Gitomer, ETS subcontract) $69,060.

Hamre, B.K. (2008-2009). *Implementation of CLASS in Head Start Monitoring: Technical Assistance and Research.* Transmanagement Systems Corporation. $ 118,310.

Pianta, R. C. & Hamre, B. K. (2008-2013). C*enter to Promote Schools as the Context for Urban Children's Mental Health, Subcontract with University of Illinois at Chicago(PI: Marc Atkins.* National Institute of Mental Health. $270,000.

Hamre, B.K. (2008-2009) *Opportunities for Leveraging Improvements in Quality in Early Childhood and K-12 Classrooms.* Picower Foundation. $287, 359.

Hamre, B. K. (2008-2010). *CLASS Video Library Supports for ABCTE Teachers and Data Analysis Services.* American Board for Certification of Teacher Excellence. $255,479 direct costs.

Hamre, B. K. & Pianta, R. C. (2007-2008). *CLASS Business Planning.* Foundation for Child Development. $120,000.

Pianta, R. C., Hamre, B. K., Downer, J. T. & Mashburn, A. J. (2007-2008). *Empirical and Theoretical Issues in Classroom Observation.* WT Grant Foundation. $173,194 direct costs.

Pianta, R. C., Justice, L., & Hamre, B. K. (2006-2010). *Education Research and Development Centers.* Washington, DC: U.S. Department of Education. $8,443,000 direct costs.

Pianta, R. C., Downer, J. T., Hamre, B. K., & Justice, L. (2005-2010). *Observational assessment of young children's competence.* National Institute of Child Health and Human Development. $1,881,573 direct costs.

Hamre, B. K., & Pianta, R. C., (2004-2006). *American Psychological Association/Institute of Education Sciences Postdoctoral Education Research Training fellowship.* American Psychological Association and Institute of Education Sciences. $110,000 direct costs.

Measures

Pianta, R.C., La Paro, K., & Hamre, B. K. (2008) *Classroom Assessment Scoring System.* Baltimore: Paul H. Brookes.

Pianta, R. C., Hamre, B. K., & Stuhlman, M. (1997). *Scoring System for the Teacher Relationship Interview*. Curry School of Education, University of Virginia, Charlottesville, VA.

Journal Reviewership

Field Reviewer for:

Developmental Psychology (2010-present)

Child Development (2009-present)

Applied Development Psychology (2009-present)

Early Childhood Research Quarterly (2006-present)

Pediatrics (2005)

School Psychology Review (2004-present)

Merrill Palmer Quarterly (2003-present)

Journal of School Psychology (2003-present)

School Psychology Quarterly (2001)

Research Mentoring

Serve as primary research mentor for three graduate students and two post-docs at CASTL, as well as secondary mentor for numerous other graduate students and post-doc. Sit on dissertation committees and co-publish with graduate students (September 2007-present).

Mentor for the *National Center for Research in Early Childhood Education (NCRECE) Program for Minority Scholars* (2008-present)

Mentor for the Curry School's *Summer Undergraduate Research Program* (2008)

Teaching Experience

EDHS 768. Psychopathology. Guest Lecturer, Curry School of Education, University of Virginia (Spring 2000).

Honors and Awards

Selected to participate in APA-sponsored *Advanced Training Institute in Longitudinal Methods, Modeling, and Measurement.* (June, 2003)

Richard Abidin Research Award, University of Virginia, Charlottesville, VA*.* (April, 2000)

Phi Beta Kappa, University of California, Berkeley. (May, 1995)

Alumni Scholarship recipient, University of California, Berkeley. (1991-1993)

Membership in Professional Organizations

American Educational Research Association (2008-present)

Society for Research in Child Development (2003-present)

Society for Prevention Research (2006-present)

American Psychological Association (1997-2006)

Hilary Ritt, Director of Content Development

Experience

Director of Content Development, Teachstone
November 2014 – Present (9 months)

Manager, Coursework, Teachstone
January 2014 – Present (1 year 7 months)
Support delivery of professional development services

Professional Development and Client Services Manager, Teachstone
July 2011 – July 2013 (2 years 1 month)
Supported implementation of teacher evaluation and professional development
initiatives

Adjunct Professor, University of Virginia
July 2007 – July 2013 (6 years 1 month)
Technology Leadership, Administration and Supervision
Teaching with Technology, Elementary and Secondary Math and Science

Education Program Designer, Teachstone
July 2010 – July 2011 (1 year 1 month)
Created professional development content aligned with evidence-based best practice

Teacher, Chemistry and Environmental Science, Roswell High School
August 2004 – June 2007 (2 years 11 months)

Education

University of Virginia, Doctor of Philosophy (Ph.D.), Instructional Technology
2007 – 2011
Dissertation: Technology Leadership and Coaching: A Support System for Teachers
Integrating Technology with Classroom Practice
(An Investigation of Organizational Conditions that Support Effective Implementation of
Technology-Focused Professional Development Initiatives)

Georgia State University, Master of Education (M.Ed.), Science Education
2003 – 2004

The Hong Kong University of Science and Technology, Chemistry
2000 – 2002

Georgia Institute of Technology, B.S. Science, Technology, and Culture
1998 – 2002

University of Leeds, Chemistry
1999 – 2000

8.2 myTeachstone Content Inventory

myTeachstone™

Content Inventory

SPRING 2015

Table of Contents

Notice: Content listed is subject to change.

Courses

Learn about Infant CLASS

Teachers learn about specific dimensions using classroom video examples; includes one course per infant CLASS dimension totaling four courses of 15 minutes each.

Learn about Infant CLASS Course Titles
- Learn about Relational Climate
- Learn about Teacher Sensitivity
- Learn about Facilitated Exploration
- Learn about Early Language Support

Infant/Toddler Development and Practices

Teachers learn to become observers of children in their care, understand the way infants and toddlers are developmentally different, and tackle teaching strategies for mixed-age classrooms. User experience is blended, with some independent/online video study coupled with resources for in-person experiences. Includes three courses of 20 minutes each.

Infant/Toddler Development and Practices Course Titles
- Infant and Toddler Caregiving: Observing Children's Cues
- Infant and Toddler Caregiving: Responding with Developmentally Appropriate Practice
- Infant and Toddler Caregiving: Nurturing Attachment with Teacher Sensitivity

Instructional Support Strategies Online for Teachers

Teachers deepen their knowledge of Instructional Support and learn strategies for implementing instructional behaviors more naturally in the classroom. This series is most applicable for teachers at the pre-K age level. Includes three courses of 20 minutes each in length.

Instructional Support Strategies Online Course Titles
Titles coming soon!

Learn about Toddler CLASS

Teachers learn about specific dimensions using classroom video examples; includes one course per toddler CLASS dimension, totaling eight videos of 15 minutes each.

Learn about Toddler CLASS Course Titles
- Learn about Positive Climate
- Learn about Negative Climate
- Learn about Teacher Sensitivity
- Learn about Regard for Child Perspectives
- Learn about Behavior Guidance
- Learn about Facilitation of Learning and Development
- Learn about Quality of Feedback
- Learn about Language Modeling

Learn about Pre-K CLASS

Teachers learn about specific dimensions using classroom video examples; includes one course per Pre-K CLASS dimension, totaling 10 videos of 15 minutes each.

Learn about Pre-K CLASS Course Titles
- Learn about Positive Climate
- Learn about Negative Climate
- Learn about Teacher Sensitivity
- Learn about Regard for Student Perspectives
- Learn about Behavior Management
- Learn about Productivity
- Learn about Instructional Learning Formats
- Learn about Concept Development
- Learn about Quality of Feedback
- Learn about Language Modeling

Videos

Infant Exemplar Videos

Users watch real videos featuring exemplary classroom interactions; supplementary text maps interactions to CLASS indicators and includes aligned discussion questions. Includes 40 videos across all infant CLASS dimensions; each video is 1-3 minutes in length.

Relational Climate Video Titles
- Joint Attention in a Peekaboo Game
- Displaying Enthusiasm during a Caregiving Routine
- Relational Behaviors during Outdoor Playtime
- Sharing Positive Affect While Singing
- Relational Behaviors and Respect During Morning Arrival
- Demonstrating Respect While Diapering and Washing Up
- Shared Positive Emotions While Playing with a Puppet
- Having Fun While Playing with a Basket
- Building Relational Climate While Playing with a Train
- Warmth and Respect at the Changing Table

Teacher Sensitivity Video Titles
- Comforting an Infant After Wiping Her Nose
- Adjusting Responses for a Child Who Wants to Eat
- Comforting an Infant Upset by a Loud Noise
- Responding Sensitively to a Frustrated Child
- Soothing a Fussy Child Before Going for a Walk
- Monitoring Children While Playing on the Floor
- Demonstrating Awareness of Many Infants
- Adjusting Actions to Soothe a Crying Child
- Responding Sensitively to a Child Falling Down
- Attending to Children's Needs during Floor Time

Facilitated Exploration Video Titles
- Encouraging a Child to Roll Over
- An Infant-Focused Approach during Playtime
- Encouraging an Infant to Explore a Toy
- Supporting Engagement While Rolling Balls
- Encouraging a Young Infant to Explore a Book
- Active Involvement during Playtime
- Facilitating Exploration While Playing with Toy Phones
- Facilitating Exploration during "Tummy Time"
- Expanding Experiences during Patty-Cake and Train Play
- Supporting Engagement during Playtime

Early Language Support Video Titles
- Teacher Talk during Feeding Routines
- Encouraging a Child to Verbalize a Greeting
- Talking with an Infant during the Diapering Routine
- Using a Toy Duck to Support Early Language

- Modeling Turn-Taking with a Young Infant
- Supporting and Extending a Child's Sounds
- Teacher Talk during Floor Time
- Teacher Talk at the Changing Table
- Supporting Language Development during Diapering
- Supporting Communication at the Mirror

Infant Classroom Snapshot Videos

Users watch and analyze real infant classrooms with ranges of effectiveness across multiple dimensions. Accompanying text includes discussion questions and descriptions of interactions across CLASS dimensions. Includes four videos of 4-8 minutes in length.

Infant Classroom Snapshot Video Titles
- Bouncing and Throwing
- Books and a Buggy Ride
- Mmm … Squash!
- Babies and Bacon

Toddler Exemplar Videos

Users watch real videos featuring exemplary classroom interactions; supplementary text maps interactions to CLASS indicators and includes aligned discussion questions. Includes 84 videos across toddler CLASS dimensions; each video is 1-3 minutes in length.

Positive Climate Video Titles
- Warm Relationships during Guitar Time
- Peer Connections and Fun While Jumping
- Fostering Relationships While Talking about Justin Bieber
- Respect and Affection during Mealtime
- Warmth and Calm Communication during Diapering
- Demonstrating Respect While Wiping a Child's Nose
- Fostering Warm Relationships While Singing "Row, Row, Row Your Boat"
- Building Relationships through Musical Games

Teacher Sensitivity Video Titles
- Resolving the Problem of Wet Clothes
- Serving as a Secure Base in the Classroom
- Providing Comfort after a Fall
- Providing Comfort and Assistance to a Crying Child
- Noticing and Responding to Cues at the Book Center
- Awareness and Responsiveness during Hand Washing
- Responding to Children during Floor Time
- Responding and Providing Comfort after a Trash Spill

Regard for Child Perspectives Video Titles
- Going with the Flow of Bouncing Up and Down
- Providing Choices and Supporting Independence at Morning Arrival
- Supporting Independence in Cleaning Up a Spill
- Supporting Independence in Resolving a Conflict
- Movement and Talking during Center Time
- Following Children's Leads with Pizza and Baskets

Behavior Guidance Video Titles
- Proactive Guidance While Using Crayons
- Clear Expectations during Cleanup
- Redirecting a Child Who is Climbing during Story Time
- Supporting Positive Behavior When a Child Grabs a Toy
- Supporting Positive Behavior While Rolling a Ball

Facilitation of Learning and Development Video Titles
- Guiding Exploration with Circles and Snowmen
- Expanding Cognition While Playing with Oats
- Relating Information about Shapes to a Child's Life
- Guiding Exploration with a Cardboard Tube
- Guiding Exploration about Being Cold

Quality of Feedback Video Titles
- Clarifying Concepts with a Book about a Gorilla
- Providing Assistance that Promotes Sustained Engagement
- Engaging in a Back-and-Forth Exchange: Taking Off Shoes
- Scaffolding and Encouragement While Completing a Puzzle
- Promoting Learning with Play Dough
- Scaffolding a Motor Skills Task

Language Modeling Video Titles
- Contingent Responding at Breakfast
- Repeating and Extending Children's Language during Lunch
- Supporting Language Use While Talking about a Picture
- Supporting Language Development While Reading *Curious George*
- Asking Open-Ended Questions about a Child's Book
- Parallel Talk While Playing with a Box
- Encouraging Language While Coloring
- Modeling Language at Lunchtime
- Supporting Language Use during a Diaper Change

Toddler Classroom Snapshot Videos

Users watch and analyze real infant classrooms with ranges of effectiveness across multiple dimensions. Accompanying text includes discussion questions and descriptions of interactions across CLASS dimensions. Includes seven videos of 4-8 minutes in length.

Toddler Classroom Snapshot Video Titles
- Dinosaur House
- Meals Can Be Messy
- Dancing Together
- Puppet High Fives
- Stamping Handprints
- Swapping Stuffed Animals
- Trucks in Tubes

Pre-K Exemplar Videos

Users watch real videos featuring exemplary classroom interactions; supplementary text maps interactions to CLASS indicators and includes aligned discussion questions. Includes 99 videos across pre-K CLASS dimensions; each video is 1-3 minutes in length.

Positive Climate Video Titles
- Warm Connections over Toy Cookies
- Sharing Excitement about Birthdays
- Matched Affect for a Child's Excitement: Sharing a "Birthday Cake"
- Modeling and Supporting Positive Communications during Dress Up
- Positive Communication about a Dinosaur Shadow Puppet
- Encouraging Warm Relationships While Talking about a Child's Shoes
- Social Conversation about Mommy's Birthday
- Fun during a Group Listening Activity

Teacher Sensitivity Video Titles
- Helping a Child Who Misses Her Mother
- Responding to a Child Who Wants to Join a Center
- Planning Appropriately for a Butterfly Release
- Quickly Resolving the Problem of a Broken Stroller
- Anticipating Problems with Fire Engines
- Attending to Many Children's Needs
- Encouraging a Child to Take a Risk
- Matching Support to Children's Needs
- Resolving a Problem by Taking Turns

Regard for Student Perspective Video Titles
- Showing Interest in Children's Thoughts about Songs
- Listening to a Child's Story
- Maximizing Child Leadership at the Play Dough Table
- Incorporating a Child's Idea into Making a Mother's Day Gift
- Eliciting a Child's Perspective on a Favorite Book
- Focusing on Children's Ideas during Centers

Behavior Management Video Titles
- Helping Children Work Cooperatively
- Quick and Effective Redirection at Mealtime
- Clear and Consistent Expectations for a Butterfly Release
- Clear Behavioral Expectations during Transition
- Getting Out Energy and Refocusing before a Lesson
- Attending to the Positive during Clean-up Time

Productivity Video Titles
- Making the Most of Lunchtime
- Efficient Management of a Routine
- Staying Busy during Center Time
- Minimizing Disruptions during a Transition
- Explicit Follow-Through during Cleanup
- Maximizing Learning Time during Transitions
- Quick Transition between Activities

Instructional Learning Formats Video Titles
- Engaging Children with a Stretchy Ghost Wrap
- Expanding Involvement While Buying Clothes
- Maximizing Interest with Creative Materials
- Effective Facilitation through Hands-On Opportunities and Questioning
- Maximizing Children's Engagement in Centers

Concept Development Video Titles
- Promoting Thinking Skills in a Discussion of a Book's Classification
- Problem Solving about How to Build a Roof
- Predicting Weight with a Balance Scale
- Encouraging Children to Brainstorm about Grilling
- Planning and Producing a Block Airport
- Encouraging Children to Think about How Cats Drink
- Making Connections during a Discussion about Fall Changes

- Comparing Bees and Butterflies

Quality of Feedback Video Titles
- A Feedback Loop at Lunchtime
- Providing Information about a Book's Title
- Back-and-Forth Exchanges about a Child's Play Dough Snowman
- Encouraging a Child's Thinking While Sorting Number Tiles
- Extended Feedback in a Small Group
- Engaging in a Feedback Loop about What Makes Jelly Sticky
- Back-and-Forth Exchanges While Discussing a Book
- Helping a Child Form Letters
- Providing Feedback to Help Children Remember *K*

Language Modeling Video Titles
- Using Open-Ended Questions to Explore Children's Ideas
- Facilitating and Encouraging Language While Playing with Toy People
- Stimulating Children's Language While Making Fire Art
- Using Advanced Language during a Science Experiment
- Promoting Conversation at the Lunch Table
- Using Advanced Language When Discussing Bees
- Mapping Bull and Bulldog at Story Time
- Extending Children's Understanding of Environment
- Talking with a Child While Transitioning Outside

Pre-K Classroom Snapshot Videos

Users watch and analyze real classrooms with a range of effectiveness across multiple dimensions. Accompanying text includes discussion questions and descriptions of interactions across CLASS dimensions. Includes nine videos of 4-8 minutes in length.

Pre-K Classroom Snapshot Video Titles
- Pumpkin Play
- Caterpillar Food
- Stringing Yarn
- Mystery Box
- Cheers for Friends
- Reduce, Reuse, Recycle
- Itsy Bitsy Dog
- Broccoli Makes You Strong
- Lights Out Freeze Game

Links and PDFs

Links and PDF documents for teachers will include selected blog posts from the Teachstone blog, printable templates, and other web resources

Examples of links and PDF resources available to teachers
- Achieving Goals One Step at a Time
- Don't Feed the Bears (But DO Provide Quality of Feedback to Children)
- Solving Problems vs. Problem Solving
- Starting the Year Off Right
- Storybooks: Sharing Culture and Increasing Vocabulary
- Teacher Tips: Making Real-World Connections Come Alive at Story Time
- Teacher Tips: Asking Open-Ended Questions
- Teacher Tips: Balancing Regard and Organization
- Teacher Tips: Being "In the Moment" with Children
- Teacher Tips: Engaging Children in Conversations
- Teacher Tips: Fostering Peer Relationships
- Teacher Tips: How to Avoid Overshadowing Children
- Teacher Tips: Let Children Do the Thinking
- Teacher Tips: Providing Clear Expectations (That Are Positive, Too!)
- Teacher Tips: Responses that Deepen Understanding
- Teacher Tips: Supporting Language Development
- The Value of Closed-Ended Questions
- Connecting with Pre-K Learners

Teachstone

Content for Teachers

Cursos

Aprenda Acerca de CLASS para Bebés
Los maestros aprenderán acerca de las dimensiones específicas de CLASS para bebés por medio de videos de aulas auténticas. Incluye en total cuatro cursos (uno para cada dimensión) de quince minutos cada uno.

Aprenda Acerca de CLASS para Bebés: Cursos en Español
- Aprenda acerca de Clima relacional
- Aprenda acerca de Sensibilidad del maestro
- Aprenda acerca de Exploración facilitada
- Aprenda acerca de Apoyo temprano del lenguaje

Aprenda Acerca de CLASS para Niños Pequeños
Maestros aprenderán acerca de las dimensiones específicas de CLASS para niños pequeños por medio de videos de aulas auténticas. Incluye en total 4 cursos (uno para cada dimensión) de quince minutos cada uno.

Aprenda Acerca de CLASS Para Niños Pequeños: Cursos en Español
- Aprenda acerca de Clima positivo
- Aprenda acerca de Clima negativo
- Aprenda acerca de Sensibilidad del maestro
- Aprenda acerca de Consideración a las perspectivas de los niños
- Aprenda acerca de Manejo de la conducta
- Aprenda acerca de Facilitar el aprendizaje y el desarrollo
- Aprenda acerca de Calidad de los comentarios
- Aprenda acerca de Ejemplificar el lenguaje

Aprenda Acerca de Pre-K CLASS
Los maestros aprenderán acerca de las dimensiones específicas de Pre-K CLASS por medio de videos de aulas auténticas. Incluye en total 4 cursos (uno para cada dimensión) de quince minutos cada uno.

Aprenda Acerca de Pre-K CLASS: Cursos en Español

10

- Aprenda acerca de Clima positivo
- Aprenda acerca de Sensibilidad del maestr
- Aprenda acerca de Consideración a las perspectivas de los alumnos
- Aprenda acerca de Manejo de la conducta
- Aprenda acerca de Productividad
- Aprenda acerca de Formatos didácticos para el aprendizaje
- Aprenda acerca de Desarrollo de conceptos
- Aprenda acerca de Calidad de los comentarios
- Aprenda acerca de Ejemplificar el lenguaje

Videos

Videoteca de Ejemplares de CLASS Para Bebés

Los usuarios verán videos presentando ejemplares de interacciones en el aula, con texto suplementario que relaciona las interacciones con los indicadores de CLASS e incluye preguntas. Incluye videos en todas las dimensiones de CLASS para bebés; cada video dura 1-3 minutos.

Pronto: Videoteca en Español
¡Títulos disponibles prontos!

Videoteca de Ejemplares de CLASS Para Niños Pequeños

Los usuarios verán videos presentando ejemplares de interacciones en el aula, con texto suplementario que relaciona las interacciones con los indicadores de CLASS e incluye preguntas. Incluye 37 videos en todas las dimensiones de CLASS para niños pequeños; cada video dura 1-3 minutos.

Clima Positivo: Videoteca
- Afecto positivo corriendo por el patio
- Mostrando afecto positivo al contar un secreto
- Risas y entusiasmo al explotar burbujas de plastico
- Afecto Positivo cantando la cancion de la vaquita
- Risas y entusiasmo bailando el "Lagartijo"

Sensibilidad del Maestro: Videoteca
- Proporcionando consuelo al decir adios a Papi
- Dando respuesta a la hora de elegir instrumento
- Conciencia y repuesta a la hora de guardar los materiales
- Conciencia y repuesta al dar la mordedera a Angela

- Consolando a una niña después de una caída

Consideración Hacia las Perspectivas de los Niños: Videoteca
- Enfoque en el nino a la hora de elegir las areas para jugar
- Apoyo a la independencia al regar las plantas
- Flexibilidad a la hora de elegir los materiales
- Enfoque en el nino y flexibilidad al jugar en los centros
- Enfoque en el niño jugando a llamar por teléfono a mamá

Guiar la Conducta: Videoteca
- Apoyo a la conducta compartiendo las clavijas
- Expectativas claras: corremos y caminamos
- Proactividad y apoyo a la confucta positiva jugando en la alfombra
- Apoyo a la conducta positiva jugando en el patio
- Expectativas claras al conducir los carritos por la carretera

Facilitar el Aprendizaje y el Desarrollo: Videoteca
- Facilitacion activa agrupando bloques de colores
- Facilitacion y expansion de la cognicion jugando a doctores
- Facilitacion activa mexclando la harina y el agua
- Facilitación activa contando los lados del cuadrado
- Facilitacion activa preparando espagueti y pizza

Calidad de los Comentarios: Videoteca
- Pistas y ayuda en la actividad de pintura
- Aliento y afirmacion pedaleando con el triciclo
- Estimulacion y ayuda jugando con la caja registradora
- Aliento y afirmacion al construir una torre
- Ayuda verbal al intentar subir la pendiente

Ejemplificar el Lenguaje: Videoteca
- Hablando en paralel mientras dibuyjan circulos y puntos
- Intercambios bidireccionales construyendo torres de colores
- Intercambios bidirrectionales hablando de caballos
- Apoyo del uso del lenguaje preparando la actividad de pintura
- Repeticion y ampliacion en el almuerzo
- Apoyando el uso del lenguaje en un descanso en el patio
- Apoyo del uso del lenguaje abriendo y cerrando la puerta

Videos de Ejemplares de Pre-K CLASS

Los usuarios verán videos presentando ejemplares de interacciones en el aula, con texto suplementario que relaciona las interacciones con los indicadores de CLASS e incluye preguntas. Incluye 32 videos en todas las dimensiones de Pre-K CLASS; cada video dura 1-3 minutos.

Clima Positivo: Videoteca
- Actividades compartidas en el arenero
- Jugando bingo juntos
- Leyendo un libro con entusiasmo
- Afecto positivo en la hora del circulo

Sensibilidad del Maestro: Videoteca
- Ayudando un nino a usar una computadora
- Abordar los problemas durante la hora de cantar
- Abordando problemas durante un juego de playa

Consideración Hacia las Perspectivas de los Alumnos: Videoteca
- Permitiendo que los alumnos elijan durante la hora de cantar
- Siguiendo las iniciativas de los ninos en la mesa de arte
- Se deja guiar por los alumnos en los centros de interes
- Permitiendo elegir en los entros de interes

Manejo de la Conducta: Videoteca
- Expectativas claras durante el tiempo en el centro
- Enfatizando lo positivo a la hora del circulo
- Reglas claras y coherentes en la estación de computadora
- Redireccion durante la hora de circulo

Productividad: Videoteca
- Estar listo para una Transicion
- Maximizando el tiempo de aprendizaje mientras los ninos se mudan de un centro o otro
- Mantenerse ocupados durante los Centros
- Maximizando el tiempo de aprendizaje en los centros

Formatos Didácticos para el Aprendizaje: Videoteca
- Preguntando efectivamente mientras hablan sobre las estrellas de mar
- Interes de los ninos mientras se preparan para hacer una pecera
- Represando animales para involucrar a los ninos
- Facilitando una actividad con crema de rasurar

Desarrollo de Conceptos: Videoteca
- Haciendo observaciones practicas sobre el sol
- Lluvia de ideas durante la hora del circulo
- Entendiendo cómo funciona una balanza

Calidad de los Comentarios: Videoteca
- Impulsar procesos de pensamiento mientras miran la pintura de una niña
- Proporcionando pistas mientras un nino forma oraciones

Ejemplificar el Lenguaje: Videoteca
- Hablar en paralelo y repeticion mientras pintan dibujos en la mesa de arte
- Conversaciones frecuentes sobre trampolines y ropa de invierno
- Hablando de la caida de un nino
- Fomentando la conversación durante el almuerzo

Courses

Instructional Support Strategies Online
Coaches learn strategies for coaching teachers and implementing Instructional Support interactions in the classroom. This series is most applicable for coaches working with teachers at the pre-K age level. Includes 15 courses of 15 minutes each in length.

Instructional Support Strategies Online Course Titles
- Instructional Support Strategies: Know Concept Development
- Instructional Support Strategies: See Concept Development
- Instructional Support Strategies: Do Concept Development
- Instructional Support Strategies: Know Quality of Feedback
- Instructional Support Strategies: See Quality of Feedback
- Instructional Support Strategies: Do Quality of Feedback
- Instructional Support Strategies: Know Language Modeling
- Instructional Support Strategies: See Language Modeling
- Instructional Support Strategies: Do Language Modeling

Feedback Strategies Online
Coaches learn strategies for providing objective, meaningful CLASS feedback to teachers. This series is applicable to coaches working with teachers at any age level; however, examples come from pre-K classrooms. Includes three courses of 20 minutes each in length.

Feedback Strategies Online Course Titles
- Feedback Strategies: Score Sharing and Focus
- Feedback Strategies: Observational Examples
- Feedback Strategies: Advice or Feedback

What is Effective Coaching?
Coaches learn best practices around strengths-based coaching and parallel process. This series is applicable to coaches working with teachers at any age level. Includes three courses of 20 minutes each in length.

What is Effective Coaching Course Titles
- Effective Coaching: Overview
- Effective Coaching: Parallel Process and Strengths-Based Strategies
- Effective Coaching: Readiness to Change

Videos

Coaching Video Series

Coaches watch videos of real teacher conferences to learn best practices, analyze successful interactions, and reflect on their practice with teachers.

Coaching Video Titles
Titles coming soon!

Links and PDFs

Links and PDF documents for coaches will include selected blog posts from the Teachstone blog, printable conference templates, whitepapers, research by others, and other web resources.

Examples of links and PDF resources available to coaches
- Connecting with Pre-K Learners
- Building a Foundation for Effective Coaching
- Brainstorming and Planning: How Are They Different?
- Coaches: What to Know if You're New to CLASS—Parallel Process
- Coaching Tip: Staying True to Your Word
- Coaching Tips: Maintaining Balance on the Job
- Giving Advice vs. Providing Feedback
- Giving Feedback to Teachers by Stretching Their Brain Muscles: A Coaching Tip
- How Do You Set Goals for Teachers?
- How to Have a One-Sided Conversation with Toddlers
- I'm Worried that I Don't Understand Instructional Support Well Enough to Support My Teachers
- Instructional Support vs. "Developmentally Appropriate" Coaching: Are They Really at Odds?
- Integrating Integration into Our Understanding of Concept Development
- Miss Matters of CLASS on Teacher Sensitivity
- Miss Matters of CLASS on Self- and Parallel Talk

- Regard for Student Perspectives: Helping or Hindering Kindergarten Readiness?
- Storybooks: Sharing Culture and Increasing Vocabulary
- Summarizing a Story—Rote Recall or Higher-Order Thinking?
- Supervisor or Coach: Which Hat Are You Wearing?
- Take Me Out to the Field: Tips for Effective Coaching
- The Importance of Building Rapport with Teachers
- The Open-Faced Sandwich and the Power of Negative Feedback
- Working Together Toward Change: Instructional Support

Links and PDFs

Links and PDF documents for administrators will include selected blog posts from the Teachstone blog, printable templates, whitepapers, research by others, and other web resources.

Examples of links and PDF resources available to administrators
- Using the CLASS Measure in Family Child Care Homes
- The CLASS Tool and Dual Language Learners
- The CLASS Tool and Special Education Settings
- Adult Learning Environments and Teacher Practice
- Baby Steps: A Walk through the Infant CLASS Tool Development Process
- Dealing with Data
- Evidence-Based PD: Improve Teacher-Child Interactions
- Expanding High Quality Interactions into Infant and Toddler Settings
- How Do You Set Goals for Teachers?
- How Dual Language Learners Benefit from Good Language Modeling
- How Long Does It Take to See Change in Interactions
- Language, Culture, and the CLASS Framework
- Measuring What Works for Children: CLASS for School & KIPS for Home
- Policy in Early Childhood: Focus on the "Right Stuff"
- Regard for Student Perspectives: Helping or Hindering Kindergarten Readiness?
- Supervisor or Coach: Which Hat Are You Wearing?
- The CLASS System and the Danielson Framework: A Crosswalk Towards Understanding
- The Open-Faced Sandwich and the Power of Negative Feedback
- What Does QRIS Mean for Your State?

Content for Observers

Links and PDFs

Links and PDF documents for observers will include selected blog posts from the Teachstone blog, printable templates, whitepapers, research by others, and other web resources.

Examples of links and PDF resources available to observers
- Using the CLASS Measure in Family Childcare Homes
- The CLASS Tool and Dual Language Learners
- The CLASS Tool and Special Education Settings
- Pre-K CLASS Observer Tips
- Are Mealtimes and Transitions Observable?
- Conflict Resolution Scenario during a CLASS Observation
- Dealing with Data
- Family Child Care: There's No Place Like Home
- FCC Challenge #4: Coding with Multiple Adults Present
- FCC Challenge: Establishing Coding Consistency in Inconsistent Settings
- Going Deeper into the CLASS Measure
- Going Deeper into the CLASS Measure: Language Modeling
- How to Have a One-Sided Conversation with Toddlers
- Integrating Integration into Our Understanding of Concept Development
- Is It Rote or Does It Promote?
- Miss Matters of CLASS on Negative Climate
- Miss Matters of CLASS on Positive Climate
- Miss Matters of CLASS on Positive Climate and Cultural Sensitivity
- Miss Matters of CLASS on Teacher Sensitivity
- Miss Matters of CLASS on Self- and Parallel Talk
- Regard for Student Perspectives: Helping or Hindering Kindergarten Readiness?
- Summarizing a Story—Rote Recall or Higher-Order Thinking?
- Understanding the Infant and Toddler CLASS Measures
- We Are Family: What Makes FCCs Different
- What Should You Do during the Year to Stay Reliable?
- Where Do We Go from Here? Wrapping Up Our FCC Series
- Why Do I Have to Recertify?

Links and PDFs

Selected articles from the Teachstone blog and other web resources:
- 5 Great Apps for Preschool Teachers
- Change Doesn't Happen Overnight (And Here's Why)
- Connect with Your Peers on LinkedIn
- Early Education Around the World: We All Share the Same Problems
- Exceptional Teachers: What It Takes to Make a Difference
- Exploring the Pre-K Age Level
- Getting to the Heart of Quality Teaching
- Importance of Play
- Making It Tangible: Fascinating Research on Bullying, Peer Networks, and Teacher-Child Interactions
- New CLASS Research Summary
- Tech in Early Education #1
- Tech in Early Education #2: Online Professional Development - Why Bother?
- Technology and Professional Development: Trends, Challenges, and Empowerment
- The CLASS Tool across Age Levels
- The Research on Teacher-Child Interactions
- Top 5 CLASS Myths
- Understanding the Highs and Lows of CLASS Scores
- What Is Effective Teaching, Anyway?
- What Really Matters for Infants
- Why We Love Kids
- Why We Love Kids: Part 2
- Why We Love Kids: Part 3
- Would You Want Your Child's Teacher Making Less than Someone Taking Care of Your Dog?

8.3 Terms Applying to myTeachstone

2.   OWNERSHIP; RESTRICTIONS; RESERVED RIGHTS.

2.1   Ownership. Teachstone owns (or has the right to license to Licensee and the Users) the My Teachstone Software, the Content and the Site, together with all Teachstone Intellectual Property. The term "Teachstone Intellectual Property" means all of the following: (a) all intellectual property associated with, or incorporated or embodied within, the My Teachstone Software, the Content and the Site, including the source code and object code of the My Teachstone Software; (b) all intellectual property rights associated with the My Teachstone Software, the Content and the Site; and (c) all proprietary rights in and to the My Teachstone Software, the Content and the Site. This Agreement does not grant to Licensee or any User, and neither Licensee nor any User shall acquire, any right, title, or interest in and to the My Teachstone Software, the Content, the Site or any Teachstone Intellectual Property, except for the limited licenses thereto expressly granted by Teachstone in this Agreement. This Agreement does not grant any rights to the Licensee to use the trademarks or service marks of Teachstone.

2.2   Restrictions. Licensee and all Users shall comply at all times with these terms, together with any terms, guidelines and notices posted at the Site or otherwise provided by Teachstone, as Teachstone deems reasonably necessary to protect the integrity and security of the My Teachstone Software, the Content or the Teachstone Intellectual Property. Neither Licensee or User shall (a) directly or indirectly, sell, rent, license, sublicense or offer for sale the My Teachstone Software, any Content, or access thereto, to any other person or entity; (b) disclose or distribute Content to any other person or entity; (c) in connection with any access or use of the Software or the Content, violate (whether intentionally or unintentionally) any applicable federal, state, county, municipal, local or other statute, law, regulation, rule, ordinance, order, or custom (collectively, "Laws"); or (d) commit any act in violation of the intellectual property or proprietary rights of Teachstone in the My Teachstone Software, the Content, or any Teachstone Intellectual Property. Each User shall only use Content for his/her personal education and training purposes only, and may download or print one (1) copy of each page of Content for such personal education and training purposes only. Licensee warrants that neither Licensee nor any User will utilize the My Teachstone Software in any manner that could, damage, disable, overburden or impair such software or interfere with any other party's use and enjoyment of the software. Neither the Licensee nor any User shall reverse engineer, decompile or disassemble the My Teachstone Software.